# TREATISE
ON
# UNITED STATES
# PATENTS
BY
H. & C. HOWSON.

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# BRIEF TREATISE

ON

# UNITED STATES PATENTS,

FOR

## INVENTORS AND PATENTEES.

BY

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U. S. Patent Office,
Washington, D. C., March 17th 1876.

Messrs. H. & C. Howson,
Philadelphia, Pa.

My Dear Sirs:—

I have read the proof of your new book, and hasten to express the gratification which the perusal gave me. I have not seen anywhere more information relating to patents, or more accurate information in such compact form. I consider the book a very valuable one, and should be glad to see it widely circulated. The information it contains would be of the utmost benefit to the inventors in this country.

Very truly yours,

Ellis Spear,
Acting Commissioner of Patents.

67251

# PREFACE.

THE Patent Laws of the United States have direct bearing upon the interests of a constantly increasing number of persons, who are desirous of acquiring some knowledge of the principles of those laws.

Exhaustive treatises on the subject, and various digests of decisions, have been published for the benefit of professional men, and latterly the Patent Office has furnished detailed information concerning the administration of the Patent Laws in the office and in the courts.

Pamphlet copies of the text of the law and of the Rules of Practice in the Patent Office, are also published and gratuitously distributed to inventors and patentees who choose to ask for them.

The writers of these pages have for some time thought that there was room for a work, occupying middle ground between the publications of the Patent Office, and the lengthy and elaborate treatises and digests which have been published by private enterprise.

Inventors and patentees desire to be reasonably fami-

liar with at least the outlines of a subject so intimately concerning them, but few have either the time or inclination to seek the information in the pages of lengthy works of technical character and style.

It is chiefly for this class that the present work has been designed, and the object aimed at has been to present the subject in terms as plain as possible, and briefly, without meagreness. The details of Patent Office practice have not been minutely dwelt upon, because they are to be obtained from the printed and published rules and regulations of that office, nor has it been considered as properly within the scope and object of the work to treat at any length upon the technicalities of such subjects as actions for infringement. The endeavor has been to give a compact and correct statement of the law as to the persons to whom, and the subjects for which, patents may be granted —as to what constitutes patentable invention or discovery—as to when the right to a patent is acquired, and how it may be lost—as to the nature of the right which a patent confers—how that right may be transferred or distributed—what acts are violations of the right, and what remedies may be had for such violations.

The plan pursued has been to give the text of the law upon the various heads treated, with comment upon the sections quoted, and with citations from decisions of the United States courts.

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# TREATISE ON PATENTS.

## CHAPTER I.

### Introductory.

The familiar word "Patent," an abbreviation of the term "Letters Patent," is suggestive of the origin to which our Patent Laws, in common with those of Great Britain, are to be traced.

The granting of exclusive privileges to make or vend different commodities, was an incident of the control which, from the earliest times, the English crown exercised over the trade of the country, and these grants were made by Letters Patent, i. e., open letters, sealed with the great seal, and addressed by the crown to the subjects at large.

It was the doctrine of the common law, as expounded by the courts, that the prerogative of granting such exclusive privileges was vested in the crown as the supreme executive power of the state, to be exercised in behalf of and for the benefit of the public, and was limited to the granting of temporary exclusive privileges to the introducers of *new* manufactures. But the prerogative, so long as its object was not defined, nor its exercise regulated by statute, was grossly abused.

"By degrees," we are informed, "the powers confided to the executive were perverted from their proper use, and, under the pretence of the better government of trade, the prerogative of the crown was employed in sanctioning, in return for pecuniary aid, individuals and corporations in very oppressive monopolies."

Patents of monopoly, as they were termed, presented a convenient mode of rewarding royal favorites at the expense of the subjects at large. The practice reached its height during the reign of Elizabeth, who granted many such patents to her servants and courtiers, giving them exclusive privileges to make, or trade in, the most ordinary articles, even some of the very necessaries of life, the prices of which were thus raised enormously.

At last, the famous "Statute of Monopolies," 21 James I., c. 3, put an end to the mischief, by declaring that all monopolies theretofore granted, or thereafter to be granted, of or for the sole buying, selling, making, working or using of anything within the realm, contrary to law and utterly void and of no effect." But from this general condemnation the act excepted "Letters Patent for limited periods of the sole working or making of any manner of *new* manufactures within the realm, to the true and first inventor and inventors of such manufactures, which others, at the time of making such Letters Patent and grants, shall not use." This clause of exception is the basis of the present English Patent Laws, and is the earliest legislative recognition of the public policy of allowing temporary exclusive privileges to the inventors of new manufactures.

A century and a half later this policy was recognised in that clause of the Constitution of the United States which empowers Congress to "promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

Congress, in pursuance of this power, passed the Patent Act of 1790, entitled "An Act to promote the progress of the useful arts," which was repealed and replaced by the Act of 1793. This in turn gave way to the Act of 1836, the provisions of which were amended and added to by several subsequent acts, and finally the Act of July 1870 was passed "to revise, consolidate and amend the statutes relating to patents and copyrights," and is embodied, with little change, in the Revised Statutes approved June 22d 1874.

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The tracing of the relationship between modern Patents and the old English grants of monopoly has been objected to, as tending to give rise to erroneous impressions.

It is said that a patent is not a monopoly, since it does not take from the public at large, the enjoyment of anything which they before possessed. And certainly, a patent is not a monopoly in that odious sense, which, from the abuses we have briefly mentioned, the word acquired. It restrains the public at large from confiscating the fruits of individual ingenuity, labor and expense, and so far, it does not deprive them of any freedom which they can rightly claim to enjoy, but is simply an enforcement of the principles of natural equity.

It can only be said to partake of the nature of a monopoly,

in the sense of taking anything from the public, in so far as it restrains not only the mere copyist, but any original inventor, who is not also the first. This last effect is in restraint of natural freedom, for being the first to make an invention or discovery confers no natural right to prevent others from making themselves, and if they make, using the same invention or discovery. But to confer that right by positive law upon the *first* inventor, is a price which the public can well afford to pay for the benefits which they derive from the concession, and a comparison of modern Patents with the old grants of monopolies furnishes an instructive contrast between mischievous and beneficial restraints upon the public at large, in favor of individuals, restraints, in form the same, but in spirit and effect totally at variance.

Modern Patent Laws are in fact an adaptation to the promotion of important public interests of an old governmental power, originally employed—if not devised—as a means of preying upon the public, and the "Statute of Monopolies" by limiting the power to the granting of exclusive rights for specified periods to the first inventors of *new* manufactures wrought the change.

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In this limitation resides the whole equity of Patents; a new or improved useful art or manufacture is an important addition to the wealth and power of the community and at the same time generally costs the originator more or less thought, labor and pecuniary expense.

Granting that the disclosure of any such useful novelty of

which he may be possessed is one of the duties which the individual owes to the society of which he is a member; he may claim for this kind of useful production the same return to which any other kind is acknowledged to entitle him, i. e., payment proportionate to its value to society and its cost to himself.

And in this connection it is important to remember that it is not a mere abstract conception which of itself makes the valuable consideration, but the physical embodiment of the conception in a way to demonstrate its utility, and make it practically available.

Production of this kind being at once most useful to the public, and apt in proportion to that utility to be expensive to the producer, merits a substantial return, and if the prospect of such a return is not held forth, will not flourish.

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A better and more equable method of providing such a return could not be devised than that of a temporary monopoly, since it leaves the payment of the inventor to time, which must determine the real value of a new thing to the public.

It is just and proper that a new and useful invention should be paid for by the public in proportion to its proven value to them, and that the mode of valuation should be the same as in the case of other products of individual skill and labor.

The public verdict, as evidenced in demand, is the best general test of the value of an article, and the profit derived from manufacture and sale, if these be carried on with proper enterprise and discretion, will be in proportion to the value.

To use the words of Bentham "It (a patent of invention) is an instance of a reward peculiarly adapted to the nature of the service, and adapts itself with the utmost nicety to those rules of proportion to which it is most difficult for reward, artificially instituted by the legislature to confer. If confined, as it ought to be, to the precise point in which the originality of the invention consists, it is conferred with the least possible waste of expense. It causes a service to be rendered, which, without it a man would not have a motive for rendering, and that only by forbidding others from doing that, which were it not for that service, it would not have been possible for them to have done. Even with regard to such inventions, for such there will be, where others besides him who possesses the reward have scent of the invention, it is still of use by stimulating all parties and setting them to strive which shall first bring the discovery to bear. With all this, it unites every property that can be wished for in a reward. It is "variable, equable, commensurable, characteristic, frugal, promotive of perseverance, subservient to compensation, popular and reasonable."

That patents have been an effective means of promoting the progress of the useful arts, no one conversant with the subject will deny; but there are those who think or affect to think, that when the arts have reached a high state of development, their further progress may safely be intrusted solely to the spur of private competition.

But in the absence of protection by law, for an inventor to disclose his improvement is to give competitors something which they can then probably use to better advantage than

himself, because they are relieved of the labor and expense attending the first practical application of an idea, and also because they may have more capital than himself. Secrecy is his only alternative, and one which cannot be depended upon, and is besides detrimental to the public, since it deprives them for a time at least of useful information, which it is to their interest to have speedily disseminated, and tends moreover to destroy mutual confidence in business.

Free competition means competition in which the parties can pursue their business upon terms as equal as respective skill, industry and means will allow. It is not, therefore, free competition, in the true sense, if the invention which has cost one man an expense of thought, time and money, is available without any expense to his competitors. That is to make a man's own labor the very means of destroying the equality. It is no answer to say that the experience of one competitor to-day may be that of another to-morrow, that the risk is equal. There could be no real equality of risk, but the risk, obviously enough, would weigh most heavily upon the most meritorious, the greatest producers would be the greatest losers by such a system of exchange, or reciprocal piracy.

But it may be said again, the inventor would derive from his ingenuity the like advantage as from his skill, in the reputation it would give his productions, and the consequent demand for them. The laws of all civilized nations have recognised that species of property which consists in the reputation of a trader, acquired by his skill and industry, and have provided means by which that property may be secured. A simple

mark, to the use of which in connection with specific goods the law gives its appropriator an exclusive right, will serve to distinguish those goods in the market, and enable him to reap the just reward of his skill. But skill differs from invention, inasmuch as simple mental apprehension will not pass the possession of it from one to another.

The skill upon which a trader's reputation is built does not pass from him with the goods which it has produced. Others may acquire equal or greater skill, but only by equal or greater exertion of the same qualities, by which his own skill has been acquired.

But the original thought embodied in a process, machine or device is thereby exposed for any ordinary intelligence to copy; it passes with the thing in which it has found expression, and after the idea has passed into the possession of competitors, the only question with the public is where they can buy what they want most advantageously to themselves. In very rare cases, the answer to this question may be such as to maintain a monopoly in the hands of the originator. This can only arise from some accident of power, the possession of great means, special skill and facilities, and a monopoly of production, depending solely upon power to shut out or crush competition by superior resources, is fortunately rare. Those, however, who might possess such power would have no incentive to invent, but every temptation to let well enough alone.

Small producers would find but a poor compensation for their ingenuity, time and labor in the reputation which a transient exclusive possession, resting merely on priority in

time, might give them. They would not be slow to discover, that to invent was actually to feed at their own expense the reputation of more formidable rivals. Thus the relative positions of different classes of trading producers would operate to prevent inventive activity in any.

Turning to the class of non-trading producers, employees having no direct business connection with the public, a class from which a large, perhaps the largest, proportion of the most useful invention proceeds. To talk to them of the advantage reputation would give them, is mockery.

Reputation can be of moment to them as workmen, only as it affects their ability to obtain employment at good wages. This their repute for skill will do, because by purchase their skill becomes the secure property of the purchaser so long as the connection lasts. But of what service to them would a reputation for ingenuity be, if employers could appropriate the fruits of that ingenuity without payment, but could not, by payment, secure them as property? If employers could not find their account in the personal exercise of invention, they would hardly consider its exercise by employees an element of value.

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Concentration of capital, based upon patents, though not without its attendant mischiefs, is upon the whole exceedingly beneficial, since it commands for the practical development of useful inventions, all the resources of skill and the advantages of commercial credit.

As a rule, the first forms of the most valuable inventions are comparatively crude, cumbersome, costly and inefficient, and so

without the aid of capital, they would be likely to remain. It is, as well to the wealthy manufacturing firms and corporations, as to individual genius that we owe the compact, durable and cheap labor-saving devices of to-day and the constant improvements which are being made in them. Patents have made wealth directly tributary to the progress of the useful arts by making it possible to employ great capital profitably in mechanical production. Let the law cease to extend its protection to the labor of the inventor, and the wealth of the capitalist will no longer extend its necessary aid to that labor; useful discoveries will be few, those made generally available still fewer, until finally the practical arts will come virtually to a stand-still. Certain it is that a field of labor in which none can be secure of finding profit, will soon cease to be cultivated by any.

The true purport of Patent Laws is perhaps not quite correctly designated by the common saying, that they recognise an invention as property. It seems more correct to say that they recognise its conception, completion and disclosure as value received by the public for which the donor is entitled to payment, and for the purpose of securing him this payment they endow him with a temporary property in the invention. The first to disclose an invention is, *primâ facie*, the party entitled to this artificial property, since to him the public is apparently indebted for a forward step in the progress of the useful arts. The exceptions to this proposition, under the Patent Laws of the United States, will be mentioned in the body of the treatise.

## CHAPTER II.

### To whom Patents are Granted.

"ANY person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, not known or used by others in this country, and not patented or described in any printed publication, in this or any foreign country, before his invention or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceedings had, obtain a patent therefor:" Sect. 4886 R. S.

Considering the question, who are entitled to patents under this section, it will be noticed that "inventors and discoverers" only are named, but by sect. 4895, it is provided that "patents" may be granted and issued or re-issued to the assignee of the inventor or discoverer, the assignment thereof being first entered of record in the Patent Office. As we shall see hereafter, however, the application for an original patent must always be made by the inventor, if living, or, if he be dead, by his executor or administrator.

Grantees of Letters Patent, therefore, must be "inventors or discoverers, their legal representatives or assigns."

The words *any person* indicate that aliens as well as citizens are entitled to the benefit of the law.

Who is an inventor or discoverer within the meaning of the law? To this question the section quoted replies, he whose invention or discovery was not, before he made it, known or used by others in this country, nor patented or described in a printed publication in this or any foreign country.

In such a case he is the *first* inventor or discoverer within the meaning of the law, and is entitled to a patent, if he has not surrendered the right by abandonment of his invention to the public, or by allowing it to be in public use or on sale for more than two years before applying for the patent.

The invention, besides being new, must be useful, i. e., it must be capable of being used, which implies that it has been brought to that state of perfection or completeness, that if fully and correctly described in the specification, those skilled in the art may from the information thus given, without experiment or invention of their own, be able to practise the invention.

Crude and imperfect experiments do not confer a right to a patent: *Agawam Co.* v. *Jordon*, 7 Wallace 583; *Washburn et al.* v. *Gould*, 3 Story 133; *Seymour* v. *Osborne*, 11 Wallace 516. Inventions or discoveries contemplated by the law as patentable, are such as are perfected and adapted to use. Not that an inventor or discoverer, before he can obtain a patent must have actually practised his invention or discovery; that is not requisite, nor usually the case, but to obtain a valid patent, it must appear that his invention or discovery can be practised

from his specification or description of it, by those skilled in the art, without other aid than their own judgment and skill.

The grant of a patent raises a *primâ facie* presumption that the applicant is the true and first inventor or discoverer of an invention perfected and adapted to use, and therefore the Commissioner of Patents, before issuing a patent, must be satisfied that the specification properly discloses such an invention—one that is not only new, so far as the records of the office show, but useful in the sense of being capable of use. And as the right to a patent rests upon the presumption that the claimant was the first to produce, and make beneficially known, some useful thing, so to defeat a patent granted on the ground of a prior invention by some other person it must be shown that the alleged prior inventor had actually produced the thing and made it capable of use. A prior conception will not suffice, nor mere experiments, if not carried to the point of perfecting the invention and adapting it to actual use. "If a person having some vague idea of a principle make numerous trials and experiments, if those trials and experiments do not result in such knowledge upon his part as enables him to put in successful practice the idea of which he has such vague notion, he does not become an inventor in the sense of the patent law. Such a person has never embodied the principle so as to make it available for practical use, and the party who embodies the principle and makes it available for practical use, is the party who is entitled to a patent and protection:" *Ransom* v. *Mayor*, 1 Fisher 252.

"Though others may have had similar ideas and may have

experimented upon them, the person who first perfected the idea, and made it capable of practical use, is the inventor, and entitled to a patent."

The many decisions of like tenor, proceed upon the principle that the Patent Law is intended to encourage *useful* inventions, that is, improvements, which are in condition to be practised or used. An undeveloped, unembodied conception, however suggestive or valuable in itself, is not such an invention.

But the rule is not to be understood as meaning that as between two independent inventors, claiming the same thing, the right necessarily belongs to the one who may have first reduced the invention to practice. On the contrary, although a patentable invention within the meaning of the law is one perfected and adapted to actual use, the right of a party who has produced such an invention, is referred to the time of his conception of the invention, provided he has perfected it and adapted it to actual use with reasonable diligence.

In actions for infringement the defendant may prove that the patentee had surreptitiously or unjustly obtained the patent for that which was first invented by another, who was using reasonable diligence in adapting and perfecting the same: Sect. 4920 R. S. This provision applies to two classes of cases, that where the patent has been obtained in fraud of the true inventor, and that also where the later of two independent inventors has been the first to apply for and obtain the patent.

"It is the right and privilege of a party, when an idea enters his mind in the essential form of invention, inasmuch as most

inventions are the result of experiment trial and effort, and few of them are worked out by mere will—to perfect, by experiment and reasonable diligence, his original idea, so as not to be deprived of the fruit of his skill and labor by a prior patent, if he is the first inventor. But there must be reasonable diligence, looking to all the facts of the case: *Cox* v. *Griggs*, 2 Fisher 174.

And though an imperfect and incomplete invention, resting in mere theory, or in intellectual notion or in uncertain experiments is not patentable, yet the invention, i. e., the finding out of something new by an operation of the intellect, is the basis of the right, which by perfection and adaptation to actual use is completed, so that he who invents first will have the prior right, if he is using reasonable diligence in adapting and perfecting the same, although the second inventor has in fact first perfected the same, and reduced it to practice in a positive form.

As to what constitutes invention in the sense of intellectual origination, there must have been more than the mere idea of accomplishing a certain result, there must have been a conception of substantially the means or method involved of attaining that result, and the conception it would seem must have been so far clear and mature that the inventor is prepared to give explanations, sufficing to enable one skilled in the art to carry out the invention.

The person who is the first to conceive and give expression to the idea of an invention, in such clear and intelligible manner that a person skilled in the business could construct the

thing, is entitled to a patent provided he used reasonable diligence in perfecting it."

The right of the first to invent, in the sense of conceiving a new thing, is well illustrated by the cases touching the often recurring question of the relation of employer and employee.

"Where a master workman, employing other people in his service, has conceived the plan of an invention and is engaged in experiments to perfect it, no suggestions from a person employed by him, not amounting to a new method or arrangement which *in itself* is a complete invention, is sufficient to deprive the employer of the exclusive property in the perfected improvement. No one is entitled to a patent for that which he did not invent, unless he can show a legal title to the same from the inventor, or by operation of law; but where a person has discovered an improved principle in a machine, manufacture, or composition of matter, and employs other persons to assist him in carrying out that principle, and they, in the course of experiments arising from that employment, make valuable discoveries ancillary to the plan and pre-conceived design of the employer, such suggested improvements are in general to be regarded as the property of the party who discovered the original improved principle, and may be embodied in his patent as a part of his invention."

"Suggestions from another made during the progress of such experiments, in order that they may be sufficient to defeat a patent subsequently issued, must have furnished such information to the person to whom the communication was made that it would have enabled an ordinary mechanic, without the

exercise of any ingenuity and special skill on his part, to construct and put the improvement in successful operation:" *Agawam Wool Co.* v. *Jordan*, 7 Wallace 583.

Invention is the work of the brain, and not of the hands. If the conception be practically complete, the artisan who gives it reflex and embodiment in a machine is no more the inventor than the tools with which he wrought: *Blandy* v. *Griffith*, 3 Fisher 609.

The adoption by an inventor of a suggestion made in the course of experiments, of something calculated more easily to carry his conceptions into effect, does not affect the validity of the patent: *Allen* v. *Rawson*, 1 C. B. 551 (English case).

The originator of an invention is entitled to avail himself of the skill of a mechanic in perfecting his device, and does not lose his right to it because he adopts suggestions made by the mechanic which do not relate to the gist of the invention: *Cogswell and Judson* v. *Burke*, 1 O. G. 380.

In cases arising out of conflicting claims of employer and employee, to the same invention, if it appear that the employment of the latter were *special* to assist in developing and putting into practice ideas of the employer, all the presumptions as to the invention and every material part of it are with the employer. But in cases where the employment has been a merely general employment to labor in that branch of the arts in which the employee may be skilled, no presumption of the kind exists.

As to the question, what is reasonable diligence in adaptation and perfection necessary to enable a party to maintain a

claim of prior invention, obviously no general rule can be given. It is purely a question of fact, to be determined only by consideration of the nature of the invention, and the circumstances in which the claimant may have been situated. There must have been reasonable diligence looking to all the facts of the case.

To preserve the right of the first to originate, he must have been using reasonable diligence in adapting and perfecting the same, at the time of the subsequent invention: *Reed* v. *Cutter*, 1 Story 599; *Agawam Co.* v. *Jordan*, 7 Wallace 583. If he does not use reasonable diligence to perfect the invention, after the idea of it is conceived, and in the meantime another not only conceives the idea but perfects the invention, and practically applies it to public use, the latter is the first and original inventor, and a patent granted to the former will be void, as he is not the first and original inventor: *Ransom* v. *Mayor*, 1 Fisher 252.

The first to invent then, i. e., to clearly conceive the idea of a new thing, will have the prior right, if he uses reasonable diligence to perfect his invention and adapt it to actual use, and by perfecting the law means not that an invention should be carried to a point where there could not be any subsequent improvement, but that it should be completed so as to be of some practical utility: *Johnson* v. *Root*, 2 Fisher 291.

This is in accordance with the object of the Patent Laws which is the encouragement of useful invention.

The party entitled to the benefit of the law is he who has been first to produce and be able to commmunicate to the pub-

lic some new thing capable of being used. So the presumption raised by the possession of a patent that the applicant was the first inventor may be rebutted by proof, either that the thing shown and described in the patent cannot be practised or used, or, that before the invention or discovery of it by the patentee it was known or used by others in this country, or patented or published here or abroad.

According to the words of the section, the thing invented or discovered, to entitle the claimant to a patent, must not, prior to his invention or discovery,

1. Have been known or used by others in *this* country ; or

2. Have been patented, or described in a *printed* publication in *this* or any foreign country.

And Sect. 4920 R. S. specifies as one of the defences which may be made to an action for infringement, the defence that the patentee was not the original and first inventor or discoverer of any substantial and material part of the thing patented.

The rulings of the courts as to the force and effect of these words are referable to the general principle that to defeat the presumption that a patentee was the first to produce and confer upon the public the benefit of some new and useful thing described and claimed in his patent, it must appear that prior to his invention or discovery, knowledge of the same or substantially the same thing existed among other members of the public.

So, it has been held, that the prior knowledge and use meant by the statute is prior knowledge and use in a manner accessible to the public (*Gayler* v. *Wilder*, 10 Howard 496 ; *Cahoon*

v. *Ring*, 1 Fisher 397), not that there must have been any general knowedge or use by the public, for a patent may be defeated by showing that the thing claimed in it as new had been discovered and put into actual practical, open use prior to the discovery of the patentee, however limited the use or knowledge of the prior discovery might have been: *Bedford* v. *Hunt*, 1 Mass. 302; *Rich* v. *Lippincott*, 2 Fisher 1. Prior knowledge and use by a single person is sufficient; the number is immaterial.

And there are decisions that the defence of prior invention may be established by proof of the prior *making* of a device, in condition for practical use, without proof of actual use: *Woodman* v. *Stimpson*, 3 Fisher 98; *Pitts* v. *Wemple*, 2 Fisher 10. But, probably, in most cases, actual use can be the only satisfactory proof of the completeness and utility of an alleged prior invention.

The prior knowledge which will defeat a patent must have been substantially such knowledge as the patent itself gives, "To defeat a patent which has been issued, it is not enough that some one, before the patentee, conceived the idea of effecting what the patentee accomplished. To constitute such a prior invention as will avoid a patent that has been granted, it must be made to appear that some one, before the patentee, not only conceived the idea of doing what the patentee has done, but also that he reduced his idea to practice and embodied it in some useful and practical form. The idea must have been carried into practical operation. Mere experiments, which were unsatisfactory, and have been abandoned, are not enough:

*Ellithorpe* v. *Robinson*, 2 Fisher 83; *Cahoon* v. *Ring*, 1 Fisher 397; *Howe* v. *Underwood*, 1 Fisher 160; *Many* v. *Jagger*, 1 Blatch. 372; *Coffin* v. *Ogden*, 18 Wallace 120.

In brief, it would appear to be the general rule that the presumption in favor of a patentee as first inventor must prevail as against a defence of prior invention, knowledge or use, unless it appear that some one, before his invention or discovery, had not only conceived but perfected the thing, and adapted it to practical use, and this had been evidenced by actual use.

Prior knowledge or use in a foreign country are not of themselves a bar to a patent here to a *bonâ fide* inventor and applicant.

Whenever it appears that the patentee, at the time of making his application for the patent, believed himself to be the original and first inventor of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been known or used in a foreign country, before his invention or discovery thereof, if it had not been patented or described in a printed publication: Sec. 4923.

Unpatented and unpublished inventions, existing in foreign countries, are not presumed to be known here, and therefore as the first to convey to the public a knowledge of the invention, a person who, independently, though subsequently, invents and patents the same thing here, may fairly be regarded as the first inventor within the true meaning and intent of the law.

But if one should obtain a patent, as inventor, for something

which he has derived from abroad, or even though it may have been original with himself, if at the time of his application he was aware that it had been known or used abroad prior to his own invention, his patent would be void, although such prior knowledge or use abroad were not publicly known here.

Therefore, although the general rule is that prior invention, knowledge or use in a foreign country can be proved only by a patent or published description, there is an exception to the rule, where it is proposed to show that the patentee, at the time of his application, knew of such prior foreign invention, knowledge or use. For the purpose of bringing such knowledge home to the applicant, oral proof is admissible: *Forbush* v. *Cook*, 2 Fisher 2.

An invention or discovery, to be patentable, must not have been patented or described in a printed publication, in this or any foreign country, prior to the invention of the claimant.

As to the requisite character of a prior patent or printed publication, domestic or foreign, invoked to bar or defeat a patent, it has been held by the Supreme Court that to do so "it must contain and exhibit a substantial representation of the patented improvement, in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct and practise the invention patented." That is, it must substantially answer the purposes of such a specification as our law requires: *Seymour* v. *Osborne*, 11 Wallace 516. Furthermore, by a printed publication which will bar or defeat a patent, is meant a work of a public

character, intended for the public, and made accessible to the public by publication before the discovery of the invention by the patentee.

A printed book or pamphlet intended merely for private circulation is not sufficient: *Reeves* v. *Keystone Bridge Company*, O. G., vol. 1, 466.

Finally, the inventor to entitle him to a patent must not have caused or allowed his invention to be in public use or on sale in this country for more than two years before applying for a patent, and must not at any time before application have abandoned the invention to the public.

Public use or sale of an invention by the inventor, or with his knowledge and consent, for more than two years before application for a patent, is conclusive evidence of abandonment. By "public use" is here meant an open use of a completed invention for ordinary purposes of business. Experimental use, for the purpose of testing an invention and discovering what modifications or improvements may be necessary to entire practicability, is not construed as abandonment, even though such use may have been in public and may have been continued for more than two years: *Birdsell* v. *McDonald*, O. G. vol. 6, 682.

On the other hand, the public use for more than two years, which will bar the inventor's right to a patent, is not necessarily a public use continued during more than two years; but any public use of the kind indicated will, notwithstanding it may have been inextensive and not continued, have that effect, if it occurred more than two years before application.

What use for more than two years will be regarded as experimental, and therefore not fatal to the inventor's right, must depend upon such circumstances as the particular character of the invention, its degree of radical novelty, the necessity of lengthened use to test its practicability, the need of a public use for that purpose, the expressed intention of the inventor in causing or allowing the use, and the reservation or non-reservation of his rights.

Similar questions enter into the consideration of how far public use or sale for less than two years can be received, as evidence tending with other circumstances to show abandonment. It is never of itself evidence of abandonment, but may be considered in connection with other acts or with declarations of the inventor.

Abandonment, which may occur at any time, is never presumed except from public use or sale for more than two years before application, and can be otherwise proved only by positive and unmistakable declarations or acts of the inventor, showing his deliberate intention not to claim the benefit of the Patent Law.

The burden of establishing by satisfactory evidence the fact that a patented invention was on sale for two years, or was abandoned prior to application, is upon the defendant.

Sect. 4899, R. S., provides—That every person who may have purchased of the inventor, or with his knowledge and consent may have constructed any newly-invented or discovered machine, or other patentable article, prior to the application by

the inventor or discoverer for a patent, or sold or used one so constructed, shall have the right to use and vend to others to be used, the specific thing so made or purchased without liability therefor. The object of this section is to prevent any unjust interference by a patentee with the rights of third parties acquired from him, either by positive purchase or implied consent, before his application for a patent, and is limited to the right to use without liability therefor the particular machine or other thing which they may have bought from him, or with his knowledge and consent have made and put into use.

Mere wrongdoers, those who may have taken advantage of knowledge communicated to them by the inventor, or otherwise acquired from him, to make and use the invention before his application without his knowledge, or though with his knowledge, yet without his consent, either positive or to be implied from his failure to object or assert his right, are plainly excluded by the language of the section. Such parties become infringers from the moment the patent is granted.

## CHAPTER III.

### For what Patents are granted.

PATENTS are granted for any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof.

It would seem that the word "manufacture" is used here in the sense of an article of manufacture, a "thing" made or manufactured by hand or by machine, and not itself a "machine" or a "composition of matter" in that limited sense in which the latter term is used. The term "art" appears to be intended to cover those inventions which relate to the *process* of manufacture, i. e., of reducing materials by hand or by machine into a form or condition fit for use, but which are not susceptible of being classed as machines.

A "process" is not named by the law as the subject of a patent, but is included under the general term "useful art." An art may require one or more processes or machines in order to produce a certain result or manufacture: *Corning* v. *Burden*, 15 Howard 267.

The term "machine" includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result: *Id.*

The term "composition of matter," as distinguished from the term "manufacture," appears to designate especially those compounds, chemical or mechanical, which are used in medicines or in the arts: Curtis on Patents 28.

It will be noticed that the statute expressly includes not only new arts, manufactures and compositions of matter, but improvements upon existing subjects of any of these classes.

From the context, it is evident that the word "discovery" in this section is used, not in its ordinary sense as applied in science. A discovery of a scientific truth, a law of nature, a property of matter, is not in itself patentable, but a patentable discovery is one which is usefully applied, and the patent is based upon the useful application made of it in some art or manufacture or in some mechanical construction.

Patents are granted, not for ideas merely, however valuable, but for things or modes. This explains from one point of view the common saying that "principles" are not patentable, i. e., they are not patentable as abstracted from means by which they are made to answer some useful purpose in the practical arts. "A mere abstract principle is unsusceptible of appropriation by patent. The applicant must show how the principle is to be used and applied to some useful purpose:" *Evans* v. *Eaton*, Pet. C. C. 341, 342.

"In its naked, ordinary sense, a discovery is not patentable. A discovery of a new principle, force or law operating, or which can be made to operate, on matter, will not entitle the discoverer to a patent. It is only where the explorer has gone beyond the mere domain of discovery, and has laid hold

of the new principle, force or law, and connected it with some particular medium, or mechanical contrivance, by which, or through which, it acts on the material world, that he secures the exclusive control of it under the Patent Laws. He then controls his discovery through the means by which he has brought it into practical action, or their equivalent, and only through them. It is then an invention, although it embraces a discovery. Sever the force or principle discovered from the means or mechanism through which he has brought it into the domain of invention, and it immediately falls out of that domain and eludes his grasp :" *Morton* v. *N. Y. Eye Infirmary*, 2 Fisher 320.

The patent in the last-cited case was for the famous and valuable discovery of the effect of sulphuric ether in producing nervous quiet and insensibility to pain, especially during surgical operations. The specification admitted it to be well known that the substance had a peculiar effect upon the nervous system, when breathed or introduced into the lungs of an animal, but claimed that it had not been known prior to the discovery of the patentee that the inhalation of such vapors would produce insensibility to pain. This, the specification stated, was the discovery ; and the combining it with, or applying it to, any operation of surgery, constituted the invention, no special or new means of administering the vapor being claimed.

The court said, " it is not important to inquire here whether this was the discovery of an increased and more perfect effect, or of an entirely new effect. *The effect discovered was pro-*

*duced by old agents, operating by old means upon old subjects.* The *effect* alone was new, and to that only can the term discovery apply." "The inhalation of the ethers had long been known. By increasing their quantity it was discovered that a new or more complete effect was produced by which the subject was rendered wholly insensible. This can be no more patentable than the discovery that increased quantity of liquors taken into the stomach would produce a like result. In both cases there is only a naked discovery of a new effect, resulting from a well-known agent, working by a well-known process. The effect is a temporary suspension of sensibility and motion in the animal body. Here what is new in the alleged invention begins and ends. The fact that the surgeon can operate upon the body in the condition to which it is thus reduced, forms no part of the invention or discovery."

This case, as thus presented in the opinion of the court, furnishes a forcible illustration of the case of an abstract discovery, most valuable, yet not patentable. That in a certain general sense it was an improvement in the art of surgery, in the same sense that an improved lancet or saw might be, did not avail, for, as pointed out by the court, the patentability of an invention or discovery must depend upon its intrinsic novelty, irrespective of the use to which it may be applicable. "It can borrow no element of patentability from the art in which it is designed to be used, except the element of utility. The sole element of novelty in the case, therefore, was the discovery of the new or greater effect produced, not by any new instrument by which the agent is administered, nor by any

different application of it to the body of the patient, but simply by the inhalation of an increased quantity of the vapor." "Even this quantity is to be regulated by the discretion of the operator and may vary with the susceptibilities of the patient to its influence. It is nothing more in the eye of the law, than the application of a well-known agent, by well-known means, to a new or more perfect use, which is not sufficient to support a patent."

The doctrine seems to be indicated in this decision that a patentable discovery must be one which also involves invention in the sense of devising either new means or some special adaptation of existing means for the practical application of the discovery.

But in *Foote* v. *Silsby*, 2 Blatch. 260, the court said: "Where a party has described a new application of some property in nature never before known or in use, by which he has produced a new and useful result, the discovery is the subject of a patent independent of any new or peculiar arrangement of machinery for the purpose of applying the new property in nature; and hence the inventor has a right to use any means, *old* or *new*, in the application of the new property to produce the new and useful result, to the exclusion of all other means. Otherwise a patent would afford no protection to an inventor in cases of this description; because, if the means used by him for applying his new idea must necessarily be new, then, in all such cases, the novelty of the arrangement used for the purpose of effecting the application would be involved in every instance of infringement, and the patentee would be bound to

make out not only the novelty in the new application, but also the novelty in the machinery employed by him in making the application. Now, in this case, as I understand the claim of the patentee, he claims the application of the principle of expansion and contraction in a metallic rod to the purpose of regulating the heat of a stove. This is the new conception which he claims to have struck out; and, although the mere abstract conception would not have constituted the subject-matter of a patent, yet when it is reduced to practice by any means *old* or *new*, resulting usefully, it is the subject of a patent, independently of the machinery by which the application is made. I think, therefore, that in examining the first question presented to you, you may lay altogether out of view the contrivance by which the application of the principle is made, and confine yourselves to the original conception of the idea carried into practice by some means; *but whether the means be old* or *new is immaterial, for although old means be used for giving application to the new conception, yet the patent excludes all persons other than the patentee from the use of those means and of all other means in a similar application.*"

Similar doctrine has been enunciated by the English courts in *Household Company* v. *Neilson*, Webster's Patent Cases, and in sundry other cases.

In *Parker* v. *Hulme*, 1 Fisher 44, the court said: "The propulsive effect of the vortical motion of water in a re-action wheel, operating by its centrifugal force, and so directed by mechanism as to operate in the appropriate direction, is patentable." He who first discovers that a law of nature can be ap-

plied to produce a particular result, and having devised machinery to make it operative, introduces it to the knowledge of his fellow men, is a discoverer and inventor of the highest grade. He may assert and establish his property, not only in the formal device for which mechanical ingenuity can at once, as soon as the principle is known, imagine a thousand substitutes; but in the essential principle which his machine was the first to embody, to exemplify, to illustrate, to make operative and to announce to mankind. This is not to patent an abstraction, but rather the invention as the inventor has given it to the world in its full dimensions and extent.

In *Detmold* v. *Reeves*, 1 Fisher 127, the court said: "he who has discovered some new element or property of matter, may secure to himself the ownership of the discovery as soon as he has been able to illustrate it practically and to demonstrate its value. His patent in such case will be commensurate with the principle which it announces to the world, and may be as broad as the conception itself."

Narrower doctrine, however, appears in the opinion of the Supreme Court in *Le Roy* v. *Tatham*, 14 How. 175. "A principle in the abstract," said the court, "is a fundamental truth, an original cause, a motive; these cannot be patented, as no one can claim in either of them an exclusive right. Nor can an exclusive right exist to a new power, should one be discovered, as steam, electricity, or any other power of nature. In all such cases the processes used to extract, modify and concentrate natural agencies, constitute the invention. The elements of the power exist; the invention is not in discovering them, but in applying

them to useful objects. *The right of the inventor is secured against all who use the same mechanical power, or one substantially the same.*"

In *O'Reilly* v. *Morse*, 15 How. 120, the eighth claim of the patent was, "I do not propose to limit myself to the specific machinery, or parts of machinery, described in the specification, the essence of my invention being the use of the motive power of the electric or galvanic current, which I call electro-magnetism, however developed, for marking or printing intelligible characters, signs or letters, at any distances, being a new application of that power, of which I claim to be first inventor or discoverer." In regard to this claim the court said, "The prosions of the Acts of Congress in relation to patents may be summed up in a few words. Whoever discovers that a certain useful result will be produced in any art, machine, manufacture or composition of matter, by the use of certain means, is entitled to a patent for it, provided he specifies the means used in a manner so full and exact that any one skilled in the science to which it appertains can, by using the means he specifies, without any addition to or subtraction from them, produce precisely the result he describes. And if this cannot be done by the means he describes, the patent is void, and if it can be done, *then the patent confers on him the exclusive right to use the means he specifies to produce the result or effect he describes and nothing more.* And it makes no difference, in this respect, whether the effect is produced by chemical agency or combination, or by the application of discoveries or principles in natural philosophy, known or unknown before his in-

vention, or by machinery acting altogether on mechanical principles. In either case, he must describe the manner and process as above mentioned, and the end it accomplishes. And any one may lawfully accomplish the same end without infringing the patent, if he uses means substantially different from those described. Indeed, if the eighth claim of the patentee can be maintained, there was no necessity for any specification further than to say that he had discovered that, by using the motive-power of electro-magnetism, he could print intelligible characters at any distance. We presume it will be admitted on all hands that no patent could have issued on such a specification. Yet this claim can derive no aid from the specification filed. It is outside of it, and the patentee claims beyond it. And if it stands, it must stand simply on the ground that the broad terms above mentioned were a sufficient description and entitled him to a patent in terms equally broad. In our judgment, the Act of Congress cannot be so construed."

If, as the two decisions last quoted appear to hold, the discoverer of a new application of a principle, force, or property of matter to a useful purpose in the arts, can obtain a patent only for the means or mode which he may have described for effecting such application, or their mechanical equivalents, it is pretty clear that the Patent Laws are inadequate for the protection of some of the very highest and most valuable conceptions.

The consequence of such doctrine must be as indicated in *Silsby* v. *Foote*, that "there must be novelty in the means, or the patent will be bad; while, if the means be new, the patent

is effective only to protect the discoverer in a monopoly of "the formal device for which mechanical ingenuity can at once, as soon as the principle is known, imagine a thousand substitutes."

If the particular means or method employed be old in itself, the patent may be obnoxious to the charge of being merely the putting of an old thing to a new use. Thus in the case of *Le Roy* v. *Tatham*, it appeared that the mechanism which the patentees used for the practical application to the art of making lead pipe of their valuable discovery of a new property in lead, was not in itself substantially new.

A good illustration of the point under discussion is furnished by the patent in *McClurg* v. *Kingsland*, 1 Howard 202, which was for a mode of casting chilled rollers and other metal cylinders and cones. In casting such articles it was desirable to give to the molten metal, as it was introduced into the mould a whirl or rotary motion, so that the dross would be thrown into the centre instead of the surface of the cylinder.

This effect it was customary to produce by stirring the molten metal. But the inventor, a workman in a foundry, observed, in pumping water into a bucket, that the water entering at and tangent to the circle of the bucket acquired a circular motion, diminishing as it approached the centre, where bits of straw and other lighter materials would be concentrated. It struck him that the application of this principle or law of nature might be beneficially made to the casting of rolls by introducing the metal at the bottom of the mould at a tangent. The thought once suggested required little or no skill or invention

to put into practice; all that was required was to change the direction of the gate which conveyed metal to the mould from a horizontal or perpendicular position to an angular one, but it was none the less a striking and valuable improvement in the art of casting rolls, and the patentable element was the application of this natural law to a useful purpose in the arts.

The mere mechanical change involved in carrying out this conception, might be regarded as not in itself constituting invention, the application of the principle was the only substantial novelty. Clearly, in such a case, to require that the means employed shall themselves be novel and patentable, and that the claim shall be confined to them, would operate very unjustly.

The doctrine most consonant with the general object and spirit of the Patent Law would seem to be that in cases involving the discovery and first application of a particular principle to the effecting of a useful result in the arts, there should be virtually a patent for the application of the principle, as it is expressed in the English case of *Forsyth* v. *Riviere*, Web. P. R. 97: "A person who discovers a principle, and also some mode of carrying that principle into practice so as to produce or attain a useful effect or result, is entitled to protection against all other modes of carrying the same principle into practice for obtaining the same effect or result."

## CHAPTER IV.

### For what Patents are Granted.

ABSTRACTIONS are not patentable, whether they be termed "principles," "functions" or modes of operation. Thus in *Burr* v. *Duryee*, 1 Wallace 531, the claim of the patent was for "the mode of operation, substantially as herein described, of forming bats of fur fibres of the required varying thickness, from brim to tip, which mode of operation results from the combination of the rotating picking mechanism, or the equivalent thereof, the pervious, 'former,' and its exhausting mechanism, or the equivalent thereof, and the means for directing the fur-bearing current, or the equivalent thereof, as set forth."

The Supreme Court commented upon this form of claim as "an attempt to convert an improved machine into an abstraction, a principle or mode of operation, or, a still more vague and indefinite entity, an idea."

The actual invention was an improved machine for making hat bodies, and the court said "a machine is a concrete thing, consisting of parts, or of certain devices and combinations of devices. The principle of a machine is properly defined to be its mode of operation, or that peculiar combination of devices which distinguish it from other machines. A machine is

not a principle or an idea. Because the law requires a patentee to explain the mode of operation of his peculiar machine, which distinguishes it from others, it does not authorize a patent for a mode of operation as exhibited in a machine."

In considering whether in any given case there is a patentable invention, or assuming that there is such, in what way it is to be claimed, great care and discrimination are very frequently required.

The classification of the statute is any new and useful art, machine, manufacture, or composition of matter, or improvement thereof. The subject of a patent must be either a new thing, or a new mode of action, in the practical arts, not an abstract result, effect or function.

What are termed functional claims, i. e., claims for the necessary functions of specified devices, or combinations of devices, are bad. If the devices, or combinations, be new, they are the proper subjects of claim; in such a case function or effect is the consequence, not the substance, of the invention. "It is for the discovery of some practical method or means of producing a beneficial result or effect that a patent is granted, and not for the result or effect itself:" *Corning* v. *Burden*, 15 Howard 268.

Portions of this decision have been construed to mean that there cannot be a patentable mechanical process; that if a result is effected by mechanism, the patent must necessarily be for the machinery. From this it would necessarily follow that, however useful the result, and novel the process in itself, if

the machinery were not substantially new, there could be no patent. But a process may be invented which, while involving the use of some, may be effected, by a variety of mechanism, or which, while possible to be carried on by hand, may be more advantageously effected by machinery. That such processes, to which particular mechanism, old or new, may be incidental, are patentable, irrespective of the machinery employed, cannot be doubted. And there seems to be no good reason why a process, which may involve the use of particular old mechanism, being in fact the case of a new use of old machinery, should not be patentable. It is plain that in such a case there cannot be a patent for a machine, or improvement thereof, and the only alternatives therefore are, that a discovery or invention of perhaps the greatest merit and importance, must go unrewarded, or the patent must be for a process, or rather for an improvement in that art to which the actual discovery may relate.

At this point, we naturally come to the consideration of a most important question, that of the patentability of a new use of an old thing, or rather of the use of an old device, machine or process for the attainment of a new result. This involves what is known as the doctrine of "double use."

The doctrine of double use is illustrated by the case of *Howe* v. *Abbott*, 2 Story 190. The claim of the patent was for a process of preparing a durable curling "palm leaf or brub grass by reducing the leaf to small filaments or fibres, and likewise spinning, baking or steaming and twisting the same."

The defendant used a portion only of the whole process

claimed, and it was proved that the same process, so far as regarded the part of it used by defendant, had, prior to the patentee's invention, been applied to hair-stuffing for mattresses. The court held that the mere application of an old process to the manufacture of an article to which it had never been applied is not a patentable invention, adding that it was precisely the same as if "a coffee-mill were for the first time used to grind corn." In *Bean* v. *Smallwood*, 2 Story 408, the court said "a machine, apparatus or other mechanical contrivance, in order to give the party a claim to a patent therefor, must in itself be substantially new. If it is old and well known, and applied to a new purpose, that does not make it patentable. A cotton-gin apparatus, applied without alteration to clean hemp, would not give a title to the gin as new."

Where the invention consisted in introducing a wire into the head of a paint-can, to give strength and prevent the walls from collapsing, and a similar wire was proven to have been previously used in ice-cream freezers, the court remarked that "if a can so constructed was old as a structure, it was of no consequence what substance was or was not intended to be carried or contained within it:" *Brown* v. *Hall*, 3 Fisher 531.

Patents are granted for new "things" or "modes of action" and not for the particular result or effect which the patentee may contemplate attaining thereby. The inventor of a machine has made it for *all* the uses to which it is applicable, and no one can obtain a new patent for the machine by applying it to a new use: *Conover* v. *Roach*, 4 Fisher 12; *Woodman* v. *Simpson*, 3 Fisher 98; but in this last case the court took

occasion to suggest that, though a party who should discover, for example, that a machine for rubbing or pebbling leather would be equally good to rub pasteboard or something else, could not therefore obtain a patent for a new machine; he might perhaps obtain a patent for an improvement in the art of manufacturing pasteboard.

The proposition, that to use a machine for a different purpose from that for which it has before been used, does not make the machine a new one, in a patentable or any other sense, is obvious enough, and even when changes in or additions to the machine are made, to adapt it to its new use, they must be such as to involve in themselves the exercise of invention, as distinguished from ordinary skill and judgment, to afford basis for a "machine" patent.

If a machine, although designed to separate smut from wheat, embodies the principle of a machine afterwards patented to separate flour from bran, and without the exercise of invention could be changed so as to perform the same functions as the latter, in substantially the same way, the patent would be void: *Swift* v. *Whisen*, 3 Fisher 343.

That is to say, the particular use to which it may be put has no bearing whatever upon the patentability of a machine; that must depend upon the essential novelty of its construction and mode of operation.

In *Tucker* v. *Spalding*, O. G. vol. 1, 144, the patent was for an improvement in *saws*, and consisted substantially in the use of detachable teeth, secured in sockets in the saw plate. A patent had previously been granted for a new and useful method of se-

curing cutters to rotary disks for the purpose of cutting tongues and grooves, mortices, &c., the mode of attaching the cutters being substantially the same as plaintiff's. The Circuit Court rejected this patent as evidence of prior invention, seemingly on account of the different use, and because no mention was made in the prior patent of the adaptability of the instrument as a saw. But the Supreme Court said, "if what it actually did is in its nature the same as sawing, and its structure and action suggested to the mind of an ordinarily skilful mechanic this double use, to which it could be adapted without material change, then such adaptation to the new use is not a new invention," and this, as a question of fact, should have been submitted to the jury.

In *Piper* v. *Moore et al.*, O. G. 4, a claim for preserving fish or other articles in a close chamber by means of a freezing mixture, having no contact with the atmosphere of the preserving chamber substantially as set forth, was held to be answered by a process in previous use for preserving ice-cream by the means and under the conditions specified.

In *N. W. Fire Extinguisher Co.* v. *Philadelphia Fire Extinguisher Co*, O. G., vol. 6, 34, a patent for apparatus in which the acid and alkaline solutions for forming carbonic acid gas were kept separate until required to extinguish a fire, when they could be readily mingled, was held void on its appearing that similar apparatus had been employed in soda fountains for the supply of beverages.

But it is by no means the case that there cannot be a patent for the use of an old contrivance for a new purpose, under any

circumstances, or that all such cases come in the category of "double use."

A mode of distinction between such cases as are patentable and such as are not is indicated in *Tucker* v. *Spalding*. If what the machine or process did before was in its nature the same as the new use, and the character of the machine or process be such as to suggest to the mind of one skilled in the art adaptability to the new use without material change, then such adaptation is not a patentable invention. If there be a *material* change in the process or machine to adapt it to its new use, there is patentable invention, and in judging as to what may be a material change in such cases, attention being had to the essentiality of the change to effect the new purpose, and apparently slight departure from, or addition to, the old conditions of the machine or process may confer patentability.

But the use of old machines or processes, without material change, may it seems be patentable as an improvement in an art, if the new use be not so analogous to the old as to be within the judgment of one skilled in the art.

"To support the argument of non-patentability of a process by reason of double use, it must be shown that the process described in the specification was known as a process before the patent was issued, and that it had been applied in the same way to some use cognate to that to which the patentee applies it:" *Roberts* v. *Dickey*, 1 O. G. 4.

In the case of *The National Filtering Oil Co.* v. *Arctic Oil Co.*, 1 Fisher 514, a patent for refining coal oil or petroleum by filtering it through bone-black was sustained, notwithstanding

prior printed publications stating that animal charcoal was useful for rendering filthy water inodorous; and for depriving rancid oils of smell and taste; and for removing color from water or oils, since—said the court—it was impossible to tell, without experiment, whether coal oil or petroleum *could* be filtered through bone-black at all, much less so as to produce a useful effect.

This case may seem to carry to an extreme point the patentability of the application of an old thing or process *to a new use.*

Where old machines or processes are used to produce a new effect differing in kind from any produced before by the same or similar machines or processes, the essence of the discovery or invention is evidently in the new application, and the case is one of a new art, or an improvement in an art. To many such cases the term "new process" is applied, so that this word is made to signify not a "mode of treatment" intrinsically new, but "a mode of treatment new as regards the particular art concerned, or material dealt with."

Questions somewhat similar are presented where the alleged novelty of an invention consists in the substitution of one material for another, in the construction of some known article of manufacture, or device.

In *Hotchkiss* v. *Greenwood*, 11 Howard 266, the patented invention as claimed was the manufacturing of knobs, attached to their spindle in a particular way, of potter's clay, or any kind of clay used in pottery, and shaped and finished by moulding, turning, burning and glazing. The only novelty

involved was the substitution in the manufacture of door-knobs of a particular construction, of potter's ware or procelain for the glass, wood, brass and other materials previously used for the purpose.

The mode of attaching the knob to the spindle appeared to be old in itself, and it also appears that other construction of door-knobs had previously been made of porcelain. The Supreme Court held that the patent did not disclose a patentable invention, although the change of material produced a better and cheaper knob.

In considering the effect of this case, however, it is to be observed that the patentee does not seem to have had the merit of being the first to suggest the applicability of pottery ware or porcelain to the manufacture of any kind of door-knobs, but only to knobs constructed or rather attached to their spindle in a particular way, which way was old.

In *Hicks* v. *Kelsey*, 18 Wallace 670, the patent was for an improved wagon reach. Previously these had been made of wood, strengthened by straps of iron. The patentee made the curve of his reach of iron, thereby gaining undoubtedly in strength, while the ends, for the sake of lightness, were of wood alone. The Supreme Court, recognising no substantial change in the mode of construction or operation or effect of the reach as being involved in the case, and regarding the alleged invention as consisting of the mere substitution of a particular material for another material which had previously been used for the same purpose in the same way, held the patent invalid.

This case may be regarded as going a little farther than

that of *Hotchkiss* v. *Greenwood*, inasmuch as it does not appear to have been shown that iron had previously been used in any structure of the same class performing a similar office.

The court said the use of one material instead of another in constructing a known machine is in most cases so obviously a matter of mere mechanical judgment and not invention, "that it cannot be called invention unless some new and useful result, an increase of efficiency or a decided saving in the operation, is clearly attained."

And, in referring to the case before them, they add, "some evidence was given to show that the wagon reach of the plaintiff is a better reach, requiring less repair, and having greater solidity than the wooden reach. But it is not sufficient to bring the case out of the category of more or less excellence of construction. The machine is the same. Axe-helves made of hickory may be more durable and cheap in the end than those made of beech and pine, but the first application of hickory to the purpose would not therefore be patentable."

It is clear that to make the substitution of one material for another in a given structure patentable, there must be something more than a mere substitution, some new result beyond excellence of construction, and something either in the result or mode of application indicative of the exercise of more than skillful selection.

As *mere* changes of material are not patentable, so also with *mere* changes in the *form* or structure of machines or device; that is, such changes as are not attended with any new or improved result, or do not involve a new mode of operation.

The change may be an improvement in one sense of the word, in the same sense that a mere substitution of metal for wood may be, i. e., in excellence of construction, but there must be something more in order to constitute patentable invention.

The statute provides for patents for improvements in old machines, as well as for machines entirely new. In either case, the inventor is entitled to a patent covering not only the precise devices or forms which he may specify, but such as can be substituted therefor by one skilled in the art, from his knowledge of the art, without the exercise of the inventive faculties: *Johnson* v. *Root*, 1 Fisher 351; *Burden* v. *Corning*, 2 Fisher 447. This is what is called the doctrine of equivalents, the word equivalent being used in a broader sense than its technical meaning among mechanics. "The doctrine of the use of mechanical equivalents is not confined to those elements which are strictly such in the science of mechanics. There are different well-known devices, any one of which may be adapted to effect a given result according to the judgment of the constructor. The mere substitution of one of these for another does not belong to the subject of invention, but of construction: *Foster* v. *Moore*, 1 Curt. 294; and in *Smith* v. *Downing*, 1 Fisher 64, mechanical equivalents are defined as meaning the substitution of merely one mechanical power for another, or one obvious and customary mode for another of effecting a like result.

But in determining what are or what are not mechanical equivalents, reference must be had not merely to the function

or office of the machine or device, but to the way in which it is designed to perform that function. The "principle" of a new machine, or of an improvement therein, consists of those peculiarities of construction and mode of operation which constitute its distinguishing character, and equivalents must be such things as can be substituted without material departure from this "principle." "To assume that every combination of devices in a machine which is used to produce the same effect, is necessarily an equivalent," is a flagrant abuse of the term "equivalent" (*Burr* v. *Duryee*), and in *Cahoon* v. *Ring*, 1 Fisher 397, an equivalent is defined as meaning "something that does the same thing in substantially the same way."

## CHAPTER V.

### For what Patents are Granted.

Most inventions relating to machines, or improvements in machines, as well as many of those which are to be classified as "manufactures," belong to the class known as combinations. A machine is essentially a combination of devices, and if at all complex in character, as if the functions of a number of devices are necessary to produce a given effect upon the material which the machine is to operate on, and the material is to undergo successive changes from the operation of the machine, a number of combinations may be involved in one machine. And there may be a combination between several machines, as well as between several parts of one machine: *Barrett* v. *Hall,* 1 Mass. 474; *Evans* v. *Eaton,* 3 Wheat. 454.

A combination in the sense of the patent law does not mean simply a collection or aggregation of parts, nor does the mere fact that an improved result may follow from a new aggregation of old elements or devices make a patentable combination.

The rule is thus stated by the Supreme Court in *Hailes et al.* v. *Van Woermer et al.*, 5 O. G. 89: "A new combination is patentable if it produces a new result, although all the elements were previously known and in use, but the result must be something additional to the results which were separately

produced complete before by the different parts; a mere aggregation of those results is not such a new result, and does not render a combination legitimate. No one can prevent others from using certain specified devices, either singly or together, because he was the first to use them together, unless he thereby produced a new and useful result which was due to the joint action of the constituent parts, and was not merely an aggregate of the effects which were produced by those parts when operating by themselves."

That is, to bring together the best points of several machines or articles of manufacture, so as to produce a machine or manufacture uniting their several excellencies, does not make a patentable combination, except some result further than this be attained, a result the consequence not of the character of the parts individually considered, but of their co-operation.

"To select the best elements previously embodied in similar articles, and embody them in one which is superior only because the best elements are united in it, may be a meritorious exercise of judgment, but involves no invention; the whole is a mere aggregate of devices, and not a legitimate combination, and is not patentable:" *John H. Coes*, 6 O. G. 1.

A patentable combination is one of which the several parts co-operate to produce a certain result, not that their operation must be simultaneous, but they must co-operate in the sense that the function of each part aids and is aided by those of the other parts.

"A combination is legitimate when all the elements co-operate in producing a result, and are necessary to it, though

their several functions are not performed simultaneously ; if performed in immediate succession it is sufficient :" *Birdsell* v. *McDonald et al.*, *Birdsell* v. *The Ashland Machine Co. et al.*, 6 O. G. 682.

The doctrine on the subject is clearly stated in *Forbush* v. *Cook*, 2 Fisher 669.

" To make a valid claim for a combination, it is not necessary that the several elementary parts of the combination should act simultaneously. If those elementary parts are so arranged that the successive action of each contributes to produce some one practical result, which result, when attained, is the product of the simultaneous or successive action of all the elementary parts viewed as one entire whole, a valid claim for thus combining those elementary parts may be made." That is, a patentable combination involves some *one* result, which must be that of the combination as a whole, an entirety.

A combination may consist of elements themselves new, or of some new and some old, or all the elements may be old. In either of the first two cases, the new elements may themselves be patented, as well as the combination of them ; but in the last case there can of course be a patent only for the combination.

Whether the elements be new or old is not material to the question of the patentability of a combination. If the combination is new, viewing it as an entirety, i. e., if there has not existed before an assemblage, similar or substantially so, of the same or substantially the same devices, accomplishing the same

or substantially the same result, in the same or substantially the same way, there exists a patentable combination.

As it is expressed in *Watson* v. *Cunningham*, 4 Fisher 528, "a combination is to be regarded as a unit, and if all its essential elements have not before been embodied and employed together, it is to be taken as an original invention."

As has been before observed, a machine or article of manufacture may embrace several combinations, and these may be capable either of being used together, or some may be used without the others, or with substitutes for them. Although each of such combinations may be in itself a patentable improvement, yet if all are embodied or susceptible of embodiment in one machine, or article of manufacture, they may be included in one patent, and made the subject of several claims.

Although in relation to the question of novelty, a combination is to be viewed in its entirety, to ascertain the character of that entirety, reference must be had to the character, number and mutual relation of its component parts.

As a patentable combination must have some one given result or office, which result or office must be the consequence of the co-operation of all the parts, the question of identity, or difference of two combinations, must depend upon whether they bring about the same result, by the co-operation of the same or similar parts, so arranged as to co-operate in the same or a substantially similar way.

They may obtain the same result and yet be very different; nor is the possession of similar co-operative parts decisive

evidence of identity, for they may be so differently arranged as to co-operate differently.

Thus, inquiry must be directed first to the result, and next to the number, character and mutual relation of parts contributing to the result. A different result indicates different means; but a like result is also consistent with very different means, and patents are granted not for results, but for means of obtaining them.

As to the *number* of parts: a combination of say three elements is not the same as a combination which, employing two of the same elements, dispenses with the third: *Gould* v. *Rees*, 15 Wallace 187.

As to the character and mutual relation of the parts: two combinations are not the same, if one substantially differs from the other in any one of its parts.

In *Prouty* v. *Ruggles*, 16 Peters 341, where the patent was for the combination of certain parts of a plow, the Supreme Court said, "None of the parts are new and none are claimed as new, nor is any portion of the combination less than the whole claimed as new, or stated to produce any given result. The end in view is proposed to be accomplished by the union of all arranged and combined together in the manner described, and this combination, composed of all the parts mentioned in the specification, and arranged with reference to each other, and to other parts of the plow in the manner therein described, is stated to be the improvement, and is the thing patented. The use of any two of these parts only, or of two combined with a third, which is substantially different in form, or in the

manner of its arrangement and connection with the others, is therefore not the thing patented;" and in *Brooks* v. *Fiske*, 15 Howard 212, the court said, "if a combination has three different known parts, and the result is proposed to be accomplished by the union of all the parts arranged with reference to each other, the use of two of these parts only, combined with a third which is substantially different in the manner of its arrangement and connection with the others, is not the same combination and no infringement." And in *Eames* v. *Godfrey*, 1 Wallace 79, "where a patent is for a combination of distinct and designated parts, it is not infringed by a combination which varies from that patented in the omission of one of the operative parts, and the substitution therefor of another part, substantially different in construction and operation, but serving the same purpose."

These decisions show that a patentable combination implies a given number of parts of a given character, co-operating in a given way to the attainment of a given result. And as there cannot be a patent for a result, neither can there be a patent covering any and every mode of combining certain elements for the attainment of a result. In *Case* v. *Brown*, 2 Wallace 230, the claim was "in combination with a corn-planting machine that is constantly moved over the ground and drops the grain intermittently, the so combining of two slides, one of which is at or near the said hopper, and the other at or near the ground, or their equivalents, with a lever, as that the operator or attendant on the machine can open said slides at

the proper time to deposit the seed and prepare a new charge by the double dropping herein specified."

Literally construed, this claim would have covered any mode of combining the two slides with the corn-planting machines and with any lever, so as to produce the effect or result described. The Circuit Court, however, charged that the claim was to be construed as for a combination, of which a lever of the described mode of connection and operation with the slides was an essential part, and this ruling was affirmed by the Supreme Court.

In brief, a patentable combination must be a definite organism of definite parts, having a defined relation to and mode of co-operation with each other.

It is not to be understood, however, that the patentee of a combination is confined to an assemblage of the precise parts which he may have specified. He is entitled to the equivalents of those parts, and what is understood by the word "equivalents" in this connection is thus stated by the Supreme Court, in *Seymour* v. *Osborne*, 11 Wallace 876, and *Gould* v. *Rees*, 15 Wallace 187: "A combination is not infringed unless by a machine containing all the material ingredients patented, or proper substitutes for one or more of such ingredients, *well known to be such* at the time when the patent was granted. An alteration in a patented combination, which merely substitutes another old ingredient for one of the ingredients in a patented combination, is an infringement of the patent if the substitute performs the same function, and was well known at the date of the patent as a proper substitute for the omitted in-

gredient; but the rule is otherwise, if the ingredient substituted was a new one, or performs a substantially different function, or was not known at the date of the plaintiff's patent as a proper substitute for the one omitted from his patented combination."

Stated briefly, this doctrine of equivalents, as applied to the case of a combination, appears to be that devices which will perform substantially the same function in the combination are equivalent, providing they are known as such at the time of the patent. Devices which will not perform the same function in the combination are not equivalents, whether known or not at the time of the patent, nor unless known at that time will they be regarded as equivalents, though they perform the same function.

In the language of the court, in *Gould* v. *Rees*, "inventors of combinations may claim equivalents as well as any other class of inventors, and they have the same right to suppress every subsequent improvement, not substantially different from what they have invented and secured by Letters Patent; but they cannot suppress subsequent improvements, which are substantially different from this invention, whether the new improvement consists in a new combination of the same ingredients or of some newly-discovered ingredients, or even of some old ingredients performing some new function, not known at the date of the Letters Patent, as a proper substitute for the ingredient withdrawn."

In speaking of the result or function of a combination, a complete or commercially useful result is not necessarily meant. "The patentee of a machine by which an article is fabricated

may distribute the several mechanisms embodied in it into groups, each embracing such as co-operate in producing a definite effect upon the material, although no one of them is capable of any commercially useful result by itself; and the conjoined operation of every one or an equivalent is necessary to accomplish the object:" *Wells* v. *Jacques*, 5 O. G. 364.

Thus, as stated at the beginning of this chapter, a number of combinations contained in one machine or organization may be made the subjects either of several patents or of several claims in one patent.

Patentable manufactures, i. e., articles of manufacture, are such as in themselves involve invention and novelty, and are distinguishable from other manufactures of the same class Their patentability in no way depends upon the method of producing them; that may be old, but if the article produced possesses in itself novel characteristics, and is useful, it may be patented. Lacking these requisites, however, it cannot be patented as a new thing, because it may have been produced by new instrumentalities or process. Product and process are entirely independent, and neither can borrow patentability from the other, but must, to be patentable, possess the requisite properties of novelty, utility, and invention, as distinguished from mere skill or judgment. So the greater utility of an article of manufacture, unless that utility depend upon definable intrinsic differences of structure or composition, is not evidence of patentability.

In the case of *The Milligan & Higgins Glue Company* v.

*Upton*, 6 O. G. 837, the patent was for "comminuted glue," that is, glue reduced by a process of disintegrational fine cutting akin to rasping, into particles thin, scale-like, curling, and thoroughly fractured, so as to form a loose uncompact mass, readily permeable to and solvent in hot water. The court held that there was no invention in merely reducing an article of bulk to minute fragments, and said that, in order to sustain a patent for a manufacture, it is essential that invention or discovery must be exercised in producing it. It is not enough that it is a new article of commerce. And in the case of *The Union Paper Collar Company* v. *Van Dusen*, where the patent claimed as a new article of manufacture, a collar made of long fibre paper, the court said, "articles of manufacture may be new in the commercial sense when they are not new in the sense of the Patent Law. New articles of commerce are not patentable as new manufactures, unless it appears in the given case, that the production of the new article involved the exercise of invention or discovery beyond what was necessary to construct the apparatus for its manufacture or production." In this case the collar did not differ in form, structure or arrangement from collars previously made of linen, paper or other fabrics; the character of paper was the only novelty, and that it appeared the patentee did not invent.

In *Draper* v. *Hudson*, 3 O. G. 354, it was held that a patent for an article of manufacture cannot be sustained on the ground that it was fabricated by new and improved machinery; but that the manufacture must be a new and improved thing in itself, possessing novelty of its own, independent of the devices, processes or arts by which it was produced."

An article of commerce, then, which does not differ from others of its class, save in the different mode of producing it, is not patentable as a new article of manufacture. It may be better in a commercial sense, more presentable, stronger or cheaper; yet it will not be patentable, unless it possesses substantial intrinsic differences indicating the exercise of invention or discovery beyond that necessary to provide the means of producing it.

If the novelty be in the means or mode of production only, that, if anything, will be the subject of a patent.

This rule applies equally of course to the class of "manufactures" to which the law specially refers as "new or improved compositions of matter."

This class of subjects bears close analogy to the class of combinations. A composition of matter may consist of old or new materials, its patentability depending upon its novelty and utility, when considered as a unit. But the character and limits of a patent for a composition of matter are to be determined as in the case of any other combination, from a consideration of the characteristics or result of the composition, and the number, character and mutual relation of parts to which the result is due. Thus one composition may patentably differ from another, either in respect of the character, or the number of its ingredients, or in their relative proportions, imparting appreciably different characteristics to the composition.

The result is first to be looked to, and then the means, i. e., the elements and their relations, to which this result is due. Upon these considerations depend the character and scope

of a patent for a "composition of matter." There cannot be a patent covering any and every mode of combining certain elements to form a composition of matter; the patent must be limited to a composition of elements of substantially such kind, numbers and relative proportions, as the inventor has found essential to give the composition, as a whole, its peculiar characteristics: *Francis et al.* v. *Mellor et al.*, 1 O. G. 48.

And a patentable improvement upon existing compositions, patented or not patented, may consist in a substantial variation, (that is, a variation effecting a result substantially different, or in a substantially different way), either in the character, number or relative proportions of ingredients.

The doctrine of equivalents, however, is applied to this—as to other classes of patentable subjects—*mere* formal changes are not invention. Where a patent is granted for a composition made of several ingredients, it covers *known* equivalents of each of the ingredients, i. e., equivalents known at the time of the patent, and an equivalent of any substance is another substance, having similar properties, and producing substantially the same effect: *Matthews* v. *Skates*, 1 Fisher 602. The words "similar properties" are used here, not in a general sense, but mean similar properties in respect to effect upon, or with, the other elements of the composition.

Recurring to the fact, that "improvements" upon existing subjects are patentable, it only remains to add that it is immaterial whether such existing subjects are themselves patented or not. But a patent for an improvement, must be distinctly

limited to the "improvement," and the possession of such a patent does not of course confer upon the patentee the right to use the thing improved upon, if patented to another, without that other's consent. And on the other hand, the patentee of the original invention, cannot use an improvement thereon patented to another, without the consent of the latter.

## CHAPTER VI.

## Application for Patent.

SEC. 4886, R. S., which forms the subject of the two preceding chapters, as defining to whom and for what a patent may be granted, also refers to the conditions: "upon payment of the duty required by law and other due proceedings had." These "due proceedings," so far as they are to be taken by the applicant, will form the subject of the present chapter.

"Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the commissioner, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding and using it, in such full, clear, concise and exact terms, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions, and he shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery:" Sec. 4888, R. S.

The applicant shall also furnish a drawing of the invention,

where the nature of the case admits of one—the drawing to be signed by the inventor, or his attorney in fact, and attested by two witnesses: Sec. 4889, R. S.

Secs. 4890 and 4891, R. S., provides for the furnishing by applicant, *if the Commissioner require it*, of a model of convenient size, in all cases admitting of representation by model, or if the invention be a composition of matter, specimens of the composition and of the several ingredients. Models must not exceed one foot in length, width or height, unless by special permission of the Commissioner.

The applicant must also make oath or affirmation that he verily believes himself to be the original and first inventor or discoverer of the art, machine, manufacture, composition or improvement for which he solicits a patent; that he does not know and does not believe the same was ever before known or used; and shall state of what country he is a citizen. This oath may be taken before any person within the United States, authorized by law to administer oaths, or when an applicant resides in a foreign country, before any minister, charge d'affaires, consul or commercial agent, holding commission under the government of the United States, or before any notary public of the foreign country in which applicant may be: Sect 4892, R. S.

To this matter, required by the law to be included in the oath or affirmation, the present rules of the office add, that "if the invention has been patented abroad, the inventor will be required to make oath that, to the best of his knowledge and belief it has not been in public use in the United States more

than two years prior to the application." This rule finds its reason in sec. 4887 (R. S.) of the law, which provides that no person shall be debarred from receiving a patent for his invention or discovery, nor shall any patent be declared invalid by reason of its having been first patented or caused to be patented in a foreign country, unless the same has been introduced into public use in the United States for more than two years prior to the application. But every patent granted for an invention which has been previously patented in a foreign country *shall be so limited as to expire at the same time with the foreign patent*, or, if there be more than one, *at the same time with the one having the shortest term*, and in no case shall it be in force more than seventeen years.

This section is of special importance to foreign inventors, (though applicable of course to any inventor, who may first patent his invention abroad), since the terms for which patents are granted in foreign counties are (with one exception) shorter than the term in the United States. It is important also to inventors in such cases to bear in mind the addition which the office-rules require to be made to the ordinary oath, in their cases.

Under the Act of 1861, the law regarding patents for inventions previously patented abroad was, not as now, that the patent should expire with a previous foreign patent, but that its term should be seventeen years from the date of the first foreign patent for the same invention. It not infrequently happened, however, that, owing to the prior foreign patent not being under the notice of the office, the United States patent

would appear on the face of it, to be granted for seventeen years from the date of its issue; and no doubt there are not a few such patents granted prior to July 1870, to which, therefore, the prior law and its construction still apply. To the owners of such patents, it is important to know, what, if any effect the discrepancy between the term for which their patents purport to be granted, and that for which they could lawfully be granted, may have upon their validity.

In the case of *O'Reilly* v. *Morse*, 15 Howard 112, decided under the law of 1839, in which originated the provision as to these cases, the Supreme Court held that a patent was not void, because on its face it did not bear the same date with a previous foreign patent taken out by the patentee for the same invention, but that the monopoly was limited to fourteen years (that being the term for which patents were then granted) from the date of the foreign patent.

Patents therefore of the kind referred to have the same force and effect as though they were in point of fact dated from the date of the prior foreign patent, i. e., they are *primâ facie* valid for seventeen years from that date, and no longer.

We have then these pre-requisites to the grant of a patent, viz.: the payment of fees; a written application or petition, as it is termed; a specification; drawing (where possible), model or specimens (where possible and required by the Commissioner), and oath or affirmation of invention. How far can failure to comply with any of these pre-requisites affect the validity of a patent granted? The model or specimens may be dis-

pensed with by the Commissioner, and it was held in *Whittemore* v. *Cutter*, 1 Gall. 433, that though the oath and payment of duty are prescribed by the law, they are not such essential pre-requisites, that their absence would invalidate a patent granted. And, it being the custom to recite in the Letters Patent, that the applicant has complied with these, and the other pre-requisites, it is held that these recitals, in the absence of fraud, are conclusive evidence as to such compliance (*Seymour* v. *Osborne*, 11 Wallace 516), and fraud in the application cannot be set up by defendant in an action for infringement.

The court, in *Crompton* v. *Belknap Mills*, 3 Fisher 536, held that the fact that a blank form of oath not executed is found among the papers of an application cannot overcome the direct recital of the Letters Patent, that the oath was taken, or the presumption that the requirements of the law were complied with in issuing the patent; and further, that the oath, though to be done prior to the granting of a patent, is not a condition precedent, failing which the patent must fail. Questions of this kind, however, can rarely arise, as compliance with all the requirements of the law is a condition precedent to the right of the Commissioner to grant a patent, and is so strictly enforced by that officer that the omission of any one of them can seldom happen.

The rules of the Patent Office, copies of which are printed for the information of the public, and are to be had upon application to the Commissioner, give ample directions as to the preparation of the merely formal parts of the application, the making of models, and the *form* of drawings and specifications.

As to the substance of the specifications, however, those characteristics upon which the validity and value of a patent depend, the method of description, and the framing of the claims which are to "point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery, the applicant must use his own judgment or seek the aid of parties experienced or skilled in such matters.

To the subject of the specification we give attention in the next chapter.

## CHAPTER VII.

### Specifications and Claims.

As we have seen in the foregoing chapter, the law requires an applicant for a patent to file in the Patent Office "a written description of his invention, and of the manner and process of making, constructing, compounding and using it, in such full, clear and exact terms as to enable persons skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same."

A document prepared in accordance with this demand is termed a specification, and this must conclude with a claim or claims particularly pointing out "the part, improvement or combination which he claims as his discovery," and must be accompanied and illustrated by a drawing, where the case admits of it.

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#### SPECIFICATIONS.

The descriptive portion of the specification is a requirement based upon the consideration that a patent is in the nature of a contract, a sale and purchase of useful knowledge, the pub-

lic as purchasers requiring that this useful knowledge shall be imparted to it in writing so full, clear, concise and exact, that thereby those of its members who may desire to make and use the invention, may be fully enabled to do so. In this, as in every other portion of the transaction, there must be the most perfect good faith on the part of the inventor. There must be no intentional concealment of anything necessary to the perfect carrying out of the invention, and no intentional description, as necessary to that end, of more than in fact is so.

Among the special defences which Sec. 4920, R. S., specifies, may be made by defendant in action for infringement, is "that *for the purpose of deceiving* the public the description and specification filed by the patentee in the Patent Office, was made to contain less than the whole truth relative to his invention or discovery, or more than is necessary to produce the desired effect."

But the law does not require that the description shall be intelligible to the members of the public generally; that would be an unreasonable and impracticable requirement. The test of sufficiency is the ability of those "skilled in the art to which the invention appertains, or most nearly relates," to "make, construct, compound and use the invention," from the description, without other aid than the exercise of their own ordinary skill and judgment, and without experiment. Consequently the description need not set forth in detail things which are old and within the ordinary knowledge of those skilled in the art; as, for example, in describing an improvement in a machine, it is not necessary to describe in detail all the old and well-

known parts of the machine; such reference only should be made to them as may be necessary to make clear the nature of and the mode of applying and using the improvement. Anything beyond this is prolixity, whereas the law requires "conciseness," and tends to endanger the interests of the patentee by causing that apparent confusion of the old and new, which will render a patent invalid.

The law further requires that "in the case of a machine, the inventor shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions."

By this word "principle" is meant the mode of operation of the machine, i. e., viewing the work to be done, the manner in which the machine performs that work. Two machines, effecting the same result by the same mode of operation, are in the eye of the law the same, although the devices used may be different. Therefore, a machine to be new, as such, must involve a new "mode of operation" and this "new mode" must be explained, so as to distinguish the machine from other inventions, i. e., other machines for performing the same work. For the same purpose the inventor must also describe the best mode in which he has contemplated applying that principle, i. e., those particular mechanical devices and the application, arrangement or combination of them, which he believes to be the best, efficiency and economy being both considered, to carry out the new "principle" or mode of operation.

It is not necessary, if he describe the best, that he should also describe others which he has contemplated, but does not

consider as good. But the spirit of the law might seem to require that if he has devised several plans, embodying the same principle or mode of operation, and contemplates them as equally good, he should describe them, for the public is entitled to not only his best, but his full knowledge. However this may be, it is evidently to his own interest, in such a case to describe and show the several modifications which he has contemplated.

The "best" which the law requires is that which the inventor has contemplated as such, not necessarily that which may in fact be best. The new "principle" or mode of operation, being clearly given, it is altogether likely that the inventor's own further experience, or the experience and skill of others, may develop more efficient or more economical devices for carrying out the principle than those which the inventor at the time of taking his patent contemplated; but this, if the inventor has in good faith given to the public his best knowledge at the time, will not affect the validity or scope of his patent.

The courts construing a patent so that it may stand good rather than be destroyed, and may secure to the inventor his full apparent right, do not countenance hypercritical readings of the inventor's description. Unintentional errors in a part of the description are not held fatal, if other parts of it suffice to correct such errors; that the description is good and sufficient is one of the *primâ facie* presumptions arising from the grant of a patent, and this presumption can only be overcome by positive proof on the part of a defendant who would raise

the objection. Accidental and isolated obscurities or errors will not suffice to sustain the objection; the true question being whether from the whole description, taken together, a person of ordinary skill in the art, and actuated by an honest desire to understand the thing described, could, without other aid than that of his own ordinary skill and judgment, "make, construct, compound and use the same."

But a description, which taken as a whole, is too vague, obscure or erroneous to answer this purpose, though unintentionally made so, is fatal to the patent, though not necessarily to the inventor's right; for the law has provided for such cases, among others, the remedy of "re-issue."

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### CLAIMS.

To dictate or suggest the proper "extent" of the claim is no part of the Commissioner's duty, further than to see that it does not embrace more than appears in view of the prior state of the art to have been actually invented by the applicant. That his claim shall cover all his actual invention is for the inventor himself to see; a patent being in the nature of a bargain between himself and the public, by which he sells them the knowledge of an invention, in consideration of a temporary exclusive right to use it, it is for him to define just what he considers to be the novelty which he sells.

The public desire, before the grant of a patent, to assure themselves as far as possible that they shall not appear to have purchased from the patentee, more than was his to sell,

and the Commissioner of Patents is their agent for this purpose.

Since, therefore, the sufficiency of his claim to cover all that he has invented is properly left to the inventor himself, and upon this sufficiency the value of his patent to him mainly depends, too great care cannot be taken in framing it.

In determining the true scope of a claim, however, the courts do not construe it merely from its own language, but from that language in connection with the body of the description: *Turrill* v. *Michigan Southern*, 1 Wallace 491.

Thus construing the claim, they will always, if possible, give it meaning and effect, and meaning and effect the very fullest, consistent with the patentee's apparent right, that by the light which the description affords, they can give it. For not only will they endeavor so to construe the patent that it shall stand, but if possible, so that it shall be effective to protect the whole of the patentee's apparent invention. By a liberal construction of the whole document together they can find definite significance for an apparently obscure claim, or give a wider construction to an apparently limited claim, or to a claim apparently too extensive, a more restricted construction than, if taken by itself, its mere language would imply. But in doing this they cannot of course go beyond what appears on the face of the patent. Their liberality must be bounded by the actual contents of the specification. They cannot ignore what is in the specification, nor interpolate anything which it does not contain.

The claim serves to define not only the limits, but the class

of the patented invention or discovery claimed by the inventor as his exclusive property, and great care is requisite to so frame it as to cover the whole invention, and in the proper way. A real, substantive invention may be left unprotected by a claim either too limited, or so framed as improperly to define the subject of the patent. Careful discrimination, for example, is sometimes necessary to determine whether an invention is patentable as an improved machine or apparatus, or as an improvement in an art. In drafting a claim, reference is to be had to the essence of the invention, the feature or features constituting its distinguishing characteristic; if the invention is a real, substantive invention, it will have some leading feature—the soul of the whole structure or method.

A patent may contain as many claims, as there may be novel points in the art, machine, manufacture, composition of matter, or improvement thereof, forming the subject, and each claim will rest on its own merits.

Invalidity of one of several claims does not invalidate the patent, which will avail to secure to the inventor all that he has rightfully claimed.

Claims should be reasonably certain; ambiguity of claim may be as fatal to the patentee's right as ambiguity of description; but if of different constructions whereof a claim may be susceptible, one which is reasonable will support the patent, it will be accepted.

As to the descriptive portions of the specification, while they need not be so particular as to dispense with the exercise of skill and judgment on the part of those to whom they are

addressed, they must be so far particular as to require no more than that ordinary skill and judgment to practically carry out their directions.

A description is bad which misleads those skilled in the art, either by omitting mention of anything essential to the practising of the invention, unless the omission be of matter within the knowledge of the workman, or by ambiguity, rendering it impossible to gather the true meaning of the description from the document itself, or by positive mis-statement.

A claim is bad which inseparably confuses the old with the new, embracing more than that of which the patentee was the inventor, or if it is not susceptible of any definite construction consistent with the description, or if it does not define the invention with due regard to its patentable character.

## CHAPTER VIII.

### Application for Patent.

THE inventor having complied with the requirements which the law demands and which are enumerated in Chapter VI., it is the duty of the Commissioner of Patents to cause an examination to be made of the alleged new invention or discovery, and if on such examination it shall appear that the claimant is justly entitled to a patent under the law, and that the same is sufficiently useful and important to issue a patent therefor: Sec. 4893, R. S.

The duty of examination devolves primarily upon one or other of twenty-four officers, termed "Principal Examiners," provided for by sec. 430, R. S.

To each principal examiner, who, in turn, has a number of assistants, is intrusted the examination of all inventions of certain classes, and under the present system the decisions of the examiners, if favorable to the *grant* of a patent, are practically final as far as regards the Patent Office. If, however, an examiner rejects an application for any reason whatever, the applicant is notified by a letter, stating briefly the reasons of rejection, together with such information and refer-

ences as may be useful in judging of the propriety of renewing his application or of altering his specification, and if, after receiving such notice, the applicant persists in his claim for a patent, with or without altering his specifications, the case is re-examined by the same officer (Sec. 4903, R. S.), who will duly reconsider the case in connection with any amendment of the specification which the applicant may offer to remove the objection, and any argument which he may present, to show why the patent should be granted, *with or without* such amendment. Such a re-examination may be had, as often as the examiner may reject the application, upon *new* grounds. But if he twice refuse a patent upon the *same* grounds, alleging the want of patentability of all or any of the claims made, the inventor may, on paying a fee of $10, appeal from his decision to an Appeal Board consisting of three officers, and styled the Board of Examiners-in-Chief: Sec. 4909, R. S.

If the Board of Examiners-in-Chief sustain the adverse action of the examiner, in whole or in part, the inventor may, on paying a fee of $20, appeal to the Commissioner (Sec. 4910), and from the Commissioner, if necessary, to the Supreme Court of the District of Columbia sitting in banc: Secs. 4911, 4912, 4913, 4914, R. S.

If any of these three tribunals decide favorably to the inventor, either as to the whole or part of the matter involved in the appeal, and the decision be acquiesced in by the inventor, the case is remitted to the examiner for further action, in accordance with the terms of the decision, it being then his duty, if it appear that the applicant has complied with all the

requisitions of the law, to allow a patent, unless he find some new and good ground of rejection, which had formerly escaped his attention.

If there be such it is his duty still to refuse the patent, since the decision of the higher tribunal is not that a patent shall be granted, but that it shall not be refused on the particular grounds originally given.

From such possible new adverse action of the examiner, twice repeated, the applicant may, without payment of new appeal fees, again resort to the higher tribunals. As a favorable decision on appeal does not necessarily imply the grant of a patent, so also an adverse decision, either of the examiner, or the appellate tribunals, does not necessarily imply the refusal of one. The objection of the examiner may go to a part only of the whole invention claimed; that, admitting the applicant to have a patentable invention, it is not so extensive as the claim asserts.

In such case, if the examiner's objection be sustained on appeal, or if the inventor chooses to acquiesce in the decision of the examiner without appeal, and to modify his claim by striking out a portion of it, or changing its language as may be required to remove the objection, it then becomes the examiner's duty to allow the patent, in accordance with the amended specifications.

It will be seen that the system of appeals which we have briefly sketched, is well calculated to prevent an improper refusal of any claim of invention which the applicant may persist in, while at the same time, the opportunity which is afforded

him to have an adverse action of the primary examiner reconsidered by that officer, in connection with arguments or amendments, or both, insures him, as far as possible, against the necessity for any appeal, to obtain his rights. In fact, the great majority of applications are allowed by the primary examiners without appeals.

The appeal system, which we have referred to, is that provided mainly for cases in which the objections of the primary examiner go to the merits of the application; that is, where that officer denies that a patentable invention is shown, or maintains that the invention, as described and claimed, is, in whole or in part, old.

But before he examines an application, with reference to these questions, it is his duty to see that the applicant has fully complied with the requirements of the law, as to the petition, oath, model or specimens, specification and drawing.

An intelligent examination into the novelty of an alleged invention, pre-supposes that the specification clearly sets forth the object of the alleged invention and the method of attaining that object, and distinctly points out the "part, improvement or combination," which the applicant claims as original with him.

If the examiner, looking into these preliminary questions, twice rejects an application on the ground that the petition, oath, model or specimens, description, claim or drawings, do not meet the requirements of the law, an appeal may, without payment of additional duty, be taken to the Commissioner.

The law furnishes the inventor with still another means of securing what he may consider to be his right, if the ordinary system of appeals fail him.

Whenever a patent on application is refused,(*for any reason whatever*),either by the Commissioner, or by the Supreme Court of the District of Columbia, upon appeal from the Commissioner, the applicant may have remedy by bill in equity, and the court having cognisance thereof, on notice to adverse parties and other due proceedings had, may adjudge that such applicant is entitled, according to law, to receive a patent for his invention, as specified in his claim, *or for any part thereof*, as the facts in the case may appear; and such adjudication, if it be in favor of the right of the applicant, shall authorize the Commissioner to issue such patent, on the applicant filing in the Patent Office a copy of the adjudication, and otherwise complying with the requirements of the law. And in all cases where there is no opposing party, a copy of the bill shall be served on the Commissioner, and all the expenses of the proceeding shall be paid by the applicant, whether the final decision is in his favor or not: Sect. 4915, R. S.

Cognisance of such bills in equity may be had by any of the Circuit Courts of the United States, or District Courts having Circuit Court powers. If there be an opposing party, as if the refusal of a patent has been by the Commissioner of Patents, upon his decision of priority of invention in favor of the complainant's opponent in an interference (see Chap. IX.), in which case the successful party in that proceeding should be made a defendant in this, and the bill must be brought

in the district where the defendant may reside, or in which he may be found, and process served on him.

The adjudication of the court shall *authorize* the Commissioner to issue such patent, if any, as the complainant may be adjudged entitled to. It is binding upon the Commissioner so far only as regards matters passed upon by the court; he may still withhold the patent, if he thinks it his duty to do so for any reason not before the court.

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Returning to a consideration of the examining system as conducted within the Patent Office. To aid the examiner in the discharge of their duties, it is provided (Sec. 486, R. S.) that a library of scientific works and periodicals, American and foreign (including published foreign patents), shall be maintained by purchases, which are provided for by annual Congressional appropriations, and the contents of this library are also accessible for reference to the public at large. Every patent granted is matter of public record, and each examiner is furnished for his special reference with printed copies of the specifications and drawings of patented inventions in the classes of which he has charge, and such printed copies are also provided in sufficient number to be furnished, at a small charge, to members of the public desiring them: Sec. 491, R. S. Models, specimens, fabrics, manufactures, works of art, as they are deposited in the office, are classified and arranged in suitable cases, and are (excepting such as relate to *pending*, or to rejected and abandoned applications for patents) open for public inspection.

The effective official examination as to novelty is, of course,

limited as a rule to seeing whether or not the thing claimed has been "patented or described in any printed publication, either here or abroad."

Whether there has been prior knowledge or use of the thing in this country, without patent or printed publication, it is impossible in most cases to undertake to pre-determine.

The only exception is in the case, infrequent in proportion to the number of patents applied for, where two or more parties seek patents at or about the same time, for substantially the same thing, or where an application for patent being rejected on a previous American patent for the same thing, the applicant demands opportunity to prove his better right.

In such cases the office is provided with the machinery for trying and determining the question of priority of invention, through the medium of a proceeding termed an interference. See Chap. 9.

Though in exceptional cases an interference may furnish the office with proof of the facts, either that the applicant had abandoned his invention, or had allowed it to be in public use, or on sale for more than two years before application, the Commissioner is not authorized by the law to declare an interference for the mere purpose of looking into these questions. The only question which he is authorized to determine by an interference is that of "priority of invention" in certain specified cases, and the law, in specifying this one question, impliedly excluded all others. Consequently, while if in an interference properly declared for the determination of "priority of invention," an applicant should voluntarily state

or furnish proof clearly showing that he had abandoned his invention, or had allowed it to be publicly used or sold for more than two years, the office might and should take cognisance of such statement or proof, though not relevant to the issue of "priority," yet applicant could not be compelled to make such statement or proof. And any attempt by a party to an interference to make use of that proceeding, for the purpose of extracting from his opponent, or of introducing from other sources, evidence on these points, must, it would seem, be discountenanced, and such testimony be disregarded, if objected to, as an attempt to use an interference for a purpose not authorized by the law.

Although preliminary official examination does not and cannot extend, as a rule, to the pre-determination of the questions of "prior knowledge, or use or abandonment," or of "public use or sale with the inventor's consent for more than two years before his application," the real value of the system is not thereby the less, but rather the greater. The settlement of these questions could be intrusted to the Patent Office only by giving it the powers and facilities of a court, and the means of settling such disputed questions of fact publicly and openly in the modes prescribed for the determining of disputed questions of fact. This would be to publish every application to the world, which would be opposed to the whole policy of a patent law. An application for a patent is a proposition on the inventor's part to sell the public a supposed secret, and it would be neither policy nor good faith to cause the agents of the public, to whom this

supposed secret is intrusted for the purpose of examination, to publish it, before the inventor had received the patent, which is his price for its publication.

The justice and value of preliminary official examination obviously depends upon its secrecy and its restriction, as far as possible, to those questions, with the satisfactory settlement of which secrecy is consistent.

It may be said then, that effective official examination must be, as a rule, restricted to the question whether or not the invention has been previously patented or published in print, here or abroad.

This is the only question which the inventor could possibly undertake to pre-determine for himself, though at incomparably greater cost, where his situation would allow him to do it at all, and with far less certainty than the office can do it.

Abandonment, or too long public use or sale of his invention, it may reasonably be presumed that the inventor will generally avoid in his own interest. "Possible unpublished knowledge or use" by others in this country, before his invention, is a risk, which the inventor must unavoidably take with his patent, a risk presumably the less, as his invention is the more valuable and important, and, therefore, the more likely to have been patented, or to have become *generally* known before, if known at all. These, then, may be regarded as exceptional questions, when compared with that to the settlement of which preliminary official examination is peculiarly adapted, i. e., whether the thing has been before patented or published here or abroad; and, perhaps, the only really well-founded

objections that have been made to the system are those which have arisen from attempts to adapt it to other duties.

In accordance with the general principle of the law, which requires of the inventor, in the interest of the public, reasonable diligence, not only in perfecting, but in publishing his invention, it is provided that all applications for patents shall be completed and prepared for examination within two years after the filing of the application; and in default thereof, or upon failure of the applicant to prosecute the same within two years after any action therein, of which notice shall have been given to the applicant, they shall be regarded as abandoned by the parties thereto, unless it be shown to the satisfaction of the Commissioner that such delay was unavoidable: Sec. 4894, R. S.

In connection with this section should be considered the proviso of sec. 35, Act of July 8th 1870, "that when an application for a patent has been rejected or withdrawn, prior to the passage of this act, the applicant shall have six months from the date of such passage to renew his application or file a new one, and if he omits to do either, his application shall have been held to have been abandoned, and upon the hearing of such applications, abandonment shall be considered as a question of fact."

In *Ex parte Andrew Mill*, 7 O. G. 961, a case involving the interpretation of this proviso, the then Commissioner of Patents held, that although the word "abandoned" applied to the application alone, the subsequent word "abandonment"

has a wider signification, referring both to the application and the invention, though his decision appears to have turned more particularly upon an interpretation of the whole proviso, as in the nature of a statute of limitations affecting the right to a patent. So viewing it, he held that a new application filed more than six months after July 8th 1870, for an invention for which the same party had made, and after rejection had withdrawn, application for patent in 1855, could not be entertained.

But in the late case of *Ex parte George Crompton*, 9 O. G. 5, arising upon the same, section 35, this decision has been overruled, and it is now held that an applicant for a patent is not barred by the proviso in question from prosecuting a new application *at any time*, although a previous application by him for a patent for the same invention may have been rejected or withdrawn prior to July 8th 1870.

This ruling appears, in fact, to be a necessary deduction from the holding of the Supreme Court, that a rejected and abandoned application is not evidence of prior invention, in the sense of the law, and is not, therefore, a bar to a patent to another party.

If a rejected and abandoned application is not evidence of a prior abandoned invention, as against another party, it cannot be so as against the applicant himself, unless the statute by express words make it so. But the word "abandonment" in the sections in question is used in connection only with the word "application," and the sections being in the nature of penal statutes are to be strictly construed. In accord-

ance with this reasoning (Sec. 4894, R. S.) is to be understood as meaning that failure to complete an application, or to prosecute it after rejection, within two years, will work an abandonment of *that* application, while under sec. 35, all applications rejected or withdrawn prior to July 8th 1870, and not renewed within six months, are abandoned. In any of such cases a *new* application may be filed at any time, but it will not be treated as a continuation of the old application; that, having been abandoned, is a nullity, and has no more relation to or bearing upon the new application of the same party, or the patent that may be granted thereon, than it would have upon the application or patent of an independent inventor.

After an application for patent has been favorably considered, and as it is termed, allowed, it is incumbent upon the applicant to pay into the Patent Office a further fee of twenty dollars ($20), before his patent will be actually granted and issued, and every patent must date as of a day not later than six months from the time at which it was passed and allowed, and notice thereof sent to the applicant or his agent, and if the final fee is not paid within that period, the patent will be withheld: Sec. 4885, R. S. But a new application for patent for the invention or discovery, may be made by any person interested in it, whether as inventor, discoverer or assignee, provided that it be within two years after the allowance of the original application: Sec. 4897, R. S.

## CHAPTER IX.

### Interfering Applications and Interfering Patents.

WHERE general activity, in seeking for and devising improvements, exists among the many persons engaged in different branches of the practical arts, there is an ever-increasing probability of several parties independently making the same or similar improvements at or about the same time. As the *first* inventor only is entitled to a patent, it is important that the Commissioner of Patents should be able to determine priority of the question of invention as between two or more claimants of the same thing.

Section 4904, of the Revised Statutes, therefore, provides that "whenever an application for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice to the applicants or applicant and patentee, as the case may be, and shall direct the primary examiner to proceed to determine the question of priority of invention, and the Commissioner may issue a patent to the party who shall be adjudged the prior inventor."

The special primary examiner, to whom the determination of this question is committed in the first place, is styled the Examiner of Interferences. From his decision the defeated

party may appeal to the Board of Examiners-in-Chief, from whose decision final appeal may be had to the Commissioner of Patents.

The respective parties may have the aid of the process of the United States Courts, to compel their witnesses to attend and give their testimony, (Sec. 4906, R. S.) provided it be at a place not more than forty miles from the place where the subpœna is served, and that the legal fees and travelling expenses in going to, returning from, and one day's attendance at the place of the examination, are paid or tendered to the witness at the time of the service of the subpœna: Sec. 4908, R. S. A witness so subpœnaed cannot, however, be compelled to disclose any secret invention or discovery made or used by himself.

The rule of the office is that before declaring an interference proper, a preliminary interference will be declared, requiring each party to file a statement, under oath, giving a detailed history of his invention.

The statement of each party remains sealed till opened at an appointed time by the Examiner of Interferences. If that officer then determines that the respective statements call for an interference, he declares it.

If the party upon whom rests the burden of proof, i. e., the latest applicant, fails to file a statement, or if his statement fails to overcome the *primâ facie* case made by the respective applications, i. e., if the date of invention given by the later applicant should not be anterior to the date of application by the earlier, or if it shows that he has abandoned his invention,

or that it has been in public use more than two years before his application, the other party will be entitled to an immediate adjudication of the case upon the record. If the earlier applicant fail to file a preliminary statement, he will not be allowed to present any testimony going to prove that he made the invention at a date prior to his application.

A preliminary statement cannot be used as evidence on behalf of the party making it, its use being to determine whether an interference should be proceeded with and to serve as a basis of cross-examination for the other party.

If the Examiner of Interferences finds that the "preliminary statements" warrant the declaration of an interference, proper notice is given to the parties or their attorneys.

In the absence of testimony, the party who first filed his application will be considered the first inventor. A time will be assigned in which the other party can take testimony, and a further time in which the adverse party shall complete his testimony; and if there be more than two parties, the times for taking testimony will be so arranged that each shall have an opportunity in his turn, each being held to go forward and prove his case against those who filed their applications before him.

The decision as to "priority of invention" is based upon a consideration and comparison of the testimony, which must be taken and considered in accordance with the ordinary rules as to admissibility or force of evidence. Or the decision may be based upon a concession by one party of priority to the other, which concession must be in writing, signed by the inventor and by the assignee, if there be one.

The power of the Commissioner, it will be noticed (Sec. 4904, R. S.), extends in these cases, only to the "issuing a patent to the party who shall be adjudged the prior inventor." He cannot abrogate the patent that may have previously been granted to the other party.

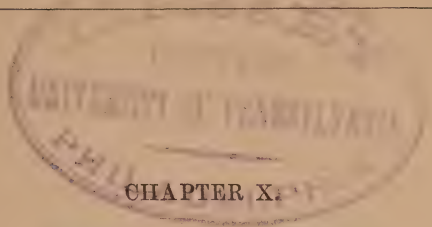
The issuing in such case of another patent to the adjudged prior inventor, is to put him on an equal footing with the patentee before the public and in the courts.

Sec. 4918, R. S., provides a remedy in the courts for the case of two interfering patents, which may arise either from an interference or from oversight in the Patent Office.

"Whenever there shall be interfering patents, any person interested in any one of such interfering patents, or in the working of the invention claimed under either of such patents, may have relief against the interfering patentee, and all parties interested under him, by suit in equity against the owners of the interfering patent; and the court, on notice to adverse parties and other due proceedings had, according to the course of equity, may adjudge and declare either of the patents void in whole, or in part, or in operative, or invalid, in any particular part of the United States, according to the interest of the parties in the patent or the invention patented. But no such judgment or adjudication shall affect the rights of any person, except the parties to the suit and those deriving title under them, subsequent to the rendition of such judgment."

Under this section, either of several holders of interfering patents may take the initiative, by filing bill in equity against

the other. The suit may be brought by *any* person interested in any one of such interfering patents, by a patentee, assignee or grantee, against any person interested in the other interfering patent or patents, and it has been held (*A. T. Foster* v. *W. M. Lindsay*, 8 O. G. 1032), that in an action under this section, the court is authorized to review both of the conflicting patents on their merits, and to decree the cancellation, not only of either, but of both, and that it may do so on the ground of want of novelty in either or both, or on any other ground, that in an action of infringement would affect the validity of either, and that, therefore, allegations in answer, setting up any of these defences to an action under this section are admissible. This ruling proceeded on the assumption that Sec. 4918 is broader in its application than the corresponding Sec. 16 of the Act of 1836, as to which the Supreme Court, in *Mowry* v. *Whitney*, 14 Wallace 434, had ruled that it only authorized the court to annul or set aside *one* patent, so far as necessary to protect the rights of the other party.



## CHAPTER X.

### Remedies for Defective Patent.

The grant of a patent after examination as to novelty and utility and the sufficiency of the specification is not conclusive upon those questions, and the government does not guarantee the validity of a patent. For obvious reasons, an application for a patent is an ex parte proceeding, of which the public at large know nothing until the grant of the patent; the only parties cognisant of the claim being, as a rule, the applicant and his attorney, if he have one, and the Patent Office. The public cannot be bound by those proceedings in the Patent Office relative to applications for patents, of which the law does not permit them to know or to become parties therein. Any person, therefore, sued for infringement of a patent may, as a rule, show by proper proof, if he can, that the invention claimed therein, or a material part of it, was not new or original with the patentee; that it is not useful, or that for other reasons the patent should not have been granted, or is invalid.

Litigation, consequently, not unfrequently has the effect of showing the patentee that his patent is defective in some material particular.

If there be a total lack of novelty or utility in the invention claimed, the patent is, of course, totally invalid. But it may

be that the defect consists in the lack of one of these requisites in some part only of the thing claimed, or merely in the mode in which the invention is described or claimed. In its liberal dealings with the rights of patentees, whose patents are thus only partially or technically defective, our law is distinguished from that of any other country.

"Whenever through inadvertence, accident or mistake, and without any fraudulent or deceptive intention, a patentee has claimed more than that of which he was the original or first inventor or discoverer, *his patent shall be valid for all that part which is truly and justly his own, provided, the same is a material or substantial* part of the thing patented; and any such patentee, his heirs or assigns, whether of the whole or any sectional interest therein, may, on payment of the fee required by law, make disclaimer of such parts of the thing patented, as he shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent. Such disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent Office, and it shall, thereafter, be considered as part of the original specification, to the extent of the interest possessed by the claimant and by those claiming under him after the record thereof. *But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing it:* Sec. 4917, R. S.

It will be perceived from the italicised portions of the section, that the filing of the written disclaimer is not a necessary precedent to the validity of the patent for "all that part,"

which being "a material or substantial part of the thing patented," is truly and justly the patentee's own.

And sec. 4922, R. S., distinctly provides that the patentee, his executors, administrators or assigns, whether of the whole or any sectional interest in the patent, may *maintain* a suit at law or in equity for the infringement of any part thereof which was bonâ fide his own, *if it is a material, and substantial part of the thing patented, and definitely distinguishable from the parts claimed without right*, notwithstanding the specifications may embrace more than that of which the patentee was the first inventor or discoverer. But in every such case in which a judgment or decree shall be rendered for the plaintiff, no costs shall be recovered, unless the proper disclaimer has been entered at the Patent Office before the commencement of the suit. But no patentee shall be entitled to the benefits of this section if he has unreasonably neglected or delayed to enter a disclaimer.

The only effect then of failure to file a disclaimer *before* bringing suit, is that plaintiff shall not recover costs.

It in no way affects his right to recover damages for infringement of that part of his patent which was bonâ fide his own, or to obtain an injunction, *unless he has "unreasonably neglected or delayed to enter a disclaimer."*

Such unreasonable neglect or delay, however, will disentitle him to the benefits of the section, so that he cannot maintain an action at law or in equity under the patent for any purpose: *Brookes* v. *Bicknell*, 3 M'Lean 449; *Parker* v. *Stiles*, 5 M'Lean 56.

What will constitute the "unreasonable neglect or delay" which will have this effect, is a question of fact to be decided upon consideration of the particular circumstances of each case, and the burden of proving such unreasonable neglect or delay is upon the defendant, and if he desire to avail himself of this defence to an action, he must set set it up and prove it: *Burden* v. *Corning*, 2 Fisher 277.

If then, either before or after bringing action for infringement, the complainant shall "without unreasonable neglect or delay" file in the Patent Office a disclaimer of that portion of the invention which may appear to have been claimed without right, he may maintain the action for infringement of so much of the patent as is valid: *Carhart* v. *Austin*, 2 Fisher 543. And in *Aiken* v. *Dolan*, 3 Fisher 197, the complainant proposing at the hearing to disclaim certain matter which the proofs in the case had shown to be old, the court held that there might be a decree for perpetual injunction without any actual previous disclaimer of record in the Patent Office.

The question may sometimes arise as to what will constitute "unreasonable neglect or delay," to file a disclaimer *after* suit brought. In *Silsby* v. *Foote*, the Supreme Court held that, where evidence going to show that the invention was not new, was introduced on the trial of a feigned issue in 1851, and the question of novelty had been in controversy from that time to 1857, and no disclaimer had been entered, there had not been an unreasonable delay. And in *O'Reilly* v. *Morse*, 15 How. 12, the same court held, that where a claim has been sanctioned by the Patent Office, and had been held valid

by a Circuit Court, the patentee had a right to insist upon it, and not disclaim it until it had been passed upon by the highest court.

The disclaimer is to be "in writing, attested by one or more witnesses, and recorded in the Patent Office." It must distinctly disclaim "such part of the thing patented, as the party filing it shall not choose to claim or hold by virtue of the patent or assignment, and shall state the extent of the interest of the party disclaiming in the patent."

The party disclaiming may be the patentee, or an assignee of the whole patent, or of a part interest therein, or the grantee of an exclusive right under the patent in a specified portion of the United States, and a disclaimer filed and recorded is thereafter a part of the patent *to the extent of the interest therein of the party or parties making the disclaimer.*

No parties interested in a patent, therefore, are bound by, or can claim in any action, the benefit of a disclaimer to which they, or those from whom they derive title, have not been parties.

It will further be noticed, that the terms of the statute make the remedy of disclaimer applicable only to cases, where after excision of the matter claimed without right, a material or substantial part of the thing patented will remain, i. e., a part forming in itself a substantive, patentable invention, and clearly "separable and distinguishable" in the description and claim from the matter cut out.

When, therefore, the patent is not thus divisible, when the original claim is not of such character, as to allow of a correc-

tion of the patentee's error by cutting out some clearly separable part, the removal of which will yet leave in the patent a material and substantial, patentable subject of claim, the remedy of disclaimer cannot be resorted to.

Now, there are very many patents inadvertently made too broad, in which the character of the invention or of the description or claim would prevent any such rectification of the patent by mere excision.

The remedy in such a case, or for a specification defective and insufficient in any other respects, is a re-issue.

"Whenever any patent is inoperative or invalid, *by reason of a defective or insufficient specification, or by reason of the patentee claiming as his own invention or discovery*, more than he had a right to claim as new, if the error has arisen by inadvertence, accident or mistake, and without any fraudulent or deceptive intention, the Commissioner shall, on the surrender of such patent, and the payment of the duty required by law, cause a new patent for the same invention, and in accordance with the corrected specifications, to be issued to the patentee, or in the case of his death, or assignment of the whole or any undivided part of the original patent, to his executors, administrators or assigns, for the unexpired part of the term of the original patent, the surrender of which shall take effect upon the issue of the amended patent: Sec. 4916, R S.

For patents, the claims of which are too broad, the remedy of re-issue is applicable, when the defect is such as to render the original patent altogether inoperative or invalid, because

the character of the invention, or of the description and claim, is such that there is no material or substantial part of the thing patented, which being truly and justly the patentee's own, is clearly separable and distinguishable in the patent, as it stands, from that which is not the patentee's own. In other words, the remedy of re-issue is applicable when that of disclaimer is not.

A patent which, being too broad, may yet be remedied by disclaimer, is not altogether inoperative and invalid, but, as we have seen, is by the terms of the law valid, for all that which being a material and substantial part of the thing patented, is truly and justly the patentee's own.

But a patent which, being too broad, must be remedied by surrender and re-issue, is inoperative and invalid, and no suit can be maintained upon it, because the old and new matter cannot be separated in the description and claim as they stand, and no distinct part can be taken away and still leave a material and substantial part of the thing patented, definitely distinguishable from the parts claimed without right. Division, therefore, being impossible, and since the patent as it stands, not being so divisible is wholly invalid, the only remedy is reconstruction of the description and claim, and this can be effected by way of surrender and re-issue.

But the remedy of re-issue is available, likewise, where the claims of the original invention do not cover the whole invention. These are cases in which the patent is invalid and inoperative, owing to a defective and insufficient specification,

the particular defect or insufficiency being its failure to "point out and distinctly claim, as the law requires, *all* that the patentee claims as his own invention." This species of defect is the most frequent cause for re-issue, though a specification may be so defective or insufficient in its descriptive parts as to require for that reason alone, correction by re-issue.

It is carefully to be borne in mind, that the legitimate object of a re-issue is simply to correct that wherein the original patent was defective, more fully or correctly to describe or claim the invention therein sufficiently indicated or claimed. The words of the law are, that the Commissioner shall, on the surrender of a patent, and payment of the required duty, cause a new patent *for the same invention, and in accordance with the corrected specifications*, to be issued; and it is distinctly provided that no new matter shall be introduced into the specification. This term, new matter, obviously has reference, not to mere language, but to substance. Such changes or amplifications of language may, of course, be made as are necessary to effect the legitimate object, "the correction of that wherein the original patent was defective," whether in description or in claim. But no new or changed feature of invention can be introduced, because the re-issue patent is to be for the identical invention which the patentee had made when he applied for his original patent, and for which that patent would then have been granted, had the description or claim not been defective.

The privilege of re-issue, which is intended as a remedial measure in favor of the rights of inventors, has not unfrequently

been perverted into a means for unlawfully stretching the apparent scope of patents beyond the true invention, and thus imposing upon and injuring the public.

This has been effected, sometimes, by basing upon such rudimentary traces of important principles as might be found in a patented invention, broad and sweeping claims couched in language designed, in effect, to cover any known application of such principles to a like purpose, and, sometimes, by a deliberate interpolation in the amended specification of new matter not to be found in the original patent at all.

The evil practice grew, until it had assumed alarming proportions. No sooner did a patent for some really useful invention become remunerative, and so draw attention, than it became the object of the greedy and unscrupulous to find some old patent, worthless in itself, but in which might be found some rude embryonic traces of the principles involved in the valuable patent. Then a re-issue was obtained, and all that can be accomplished by ingenious verbiage was done to give this re-issue the apparent effect of anticipating and covering whatever was valuable in the later patent. This species of re-issue became a weapon wherewith to embarrass and levy blackmail upon meritorious patentees and manufacturers, and either to cut off or compel a division of the hard-earned fruits of their ingenuity, or of their enterprise and invested capital.

The courts have had frequent occasion to animadvert upon re-issues of this kind, and it was partly, no doubt, with a view to check the mischievous practice, which has generally pro-

ceeded from speculators and not from true inventors, that in the Act of 1870 a provision was introduced (sec. 4895, R. S.), that an application for a re-issue must be made, and the specification sworn to by the inventor, if he be living, even though the patent have been assigned by him to others, unless so assigned prior to July 8th 1870.

This provision seems well calculated both to restrain the obtaining of unlawful re-issues, and to lead to greater care in the preparation of applications for original patents, as it tends to make worthless or defective patents less available for speculative purposes.

A further restraint is in the proviso of sec. 4916, R. S., "that in case of a machine patent, the model or drawings shall not be amended, except each by the other."

A relaxation of this rule, and one of questionable policy, though applicable only to a limited class of cases, is contained in the succeeding clause: "but when there is neither model nor drawing, amendments may be made upon proof satisfactory to the Commissioner, that such new matter or amendment was a part of the original invention, and was omitted from the specification by inadvertence, accident or mistake, as aforesaid."

Again, it sometimes happens that one patent has been made to embrace several distinct patentable improvements, each of which might have been made the subject of a distinct patent, and it may become proper and desirable thus to separate them. For this, the law provides "that the Commissioner may, in his discretion, cause several patents to be issued for distinct and

separate parts of the thing patented, upon demand of the applicant and the payment of the required fee for a re-issue, for each of such re-issued letters patent."

"The specification and claim in every such case shall be subject to revision and restriction, in the same manner as original applications are:" Sec. 4916, R. S. That is to say, applications for re-issues are to undergo an examination, for the purpose of determining whether or not the matter claimed was new at the time the original patent was applied for, and is useful within the meaning of the law, and whether the new specification meets the requirements of the law.

A re-issue is to be for the very invention, or some substantial and material part of it, shown or described in the specification, drawing or model of the application for the original patent; if the Commissioner of Patents decide that the matter embraced in the new specification was so shown or described in the original, was new at the time, is useful, and sufficiently described and claimed in the new specification, it is his duty to grant the re-issue, without any reference to patents which may have been granted to others, subsequent to the original patent sought to be re-issued. It was formerly considered to be within the discretion of the Commissioner of Patents to declare an interference between applications for re-issue and any such intervening patents, but it has been held by the Supreme Court of the District of Columbia, that he has no such power.

If a re-issue be refused, the original patent remains in force, the surrender of the original taking effect only from the grant of the re-issue.

"The patent so re-issued, together with the corrected specification, shall have the effect and operation in law on the trial of all causes for actions thereafter arising, as though the same had been originally filed." Of any claim under the original patent, the surrender and re-issue, since they involve a distinct avowal by the patentee that such original patent was inoperative and invalid, are, of course, an abandonment.

The act of the Commissioner of Patents in granting a re-issue, is considered by the courts as raising a presumption that it is for the same invention as was the original patent, a presumption conclusive, unless it is apparent upon a comparison of the re-issued with the original patent to be made by the court, that there is such a clear repugnancy between the old and the new patent, that, as matter of legal construction, the re-issued patent must be construed as not for the same invention described or shown in the original.

The question is one of law for the court, and no evidence outside of the patents themselves is received, unless the court, in its discretion, allow that of experts for the purpose of explaining technical terms requiring the assistance of such persons in defining them: *Seymour* v. *Osborne*, 11 Wallace 516.

A person sued as an infringer of a re-issued patent, cannot make the defence or offer testimony to show that the re-issue was obtained by fraudulent representations.

If he desires to contend that the patent should be abrogated on that ground, he can do so only through the medium of a direct action for that purpose.

## CHAPTER XI.

### Of Assignments—Grants—Licenses.

The statute (sec. 4884, R. S.) enacts, that every patent shall contain "a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the exclusive right to make, use and vend the invention or discovery throughout the United States and the territories thereof."

The patentee may be the inventor, or his assignee, for the right to a patent for an invention may be assigned before a patent is obtained or even applied for: *Rathborne* v. *Orr*, 5 M'Lean 132. The Constitution and the law together give to the inventor, from the moment of discovery, an inchoate property therein, which is completed by suing out a patent: *Evans* v. *Jordan*, Brock. 252; *Gayler* v. *Wilder*, 10 Howard 477; and this inchoate property he may assign to another, who will then be entitled to receive the patent: Sec. 4895, R. S.

It was at one time held (4 Opin. Attorney-General and *Ager's Case*, Law's Digest 159), that a patent could not properly issue jointly to an inventor, as such, and his assignee of a part interest, but that it must issue to the inventor or to the assignee or assignees of the whole interest.

And in cases where an inventor sold a part interest, and it

was desired that the patent should issue to himself and the purchaser, it was the practice for the inventor to assign to himself and the purchaser, and to request the issue of the patent to the parties jointly as assignees. But the present rules of the Patent Office do not require this, and a patent will be issued to the inventor and an assignee of an undivided part of the interest jointly.

In every case application for an original patent must be made, and the specification sworn to by the inventor or discoverer, if he be living (Sec. 4895, R. S.), or if he be dead, by his executor or administrator (Sec. 4896, R. S.), and to secure the issue of a patent to an assignee, the assignment must first be entered of record in the Patent Office (Sec. 4895, R. S.), and should contain a clause authorizing and requesting the Commissioner so to issue the patent.

If the assignment do embody such a clause, it will suffice to pass the legal title to the patent to the assignee, even though the patent should, by accident, issue to the inventor. No additional assignment, after the grant of the patent, will be necessary: *Gayler* v. *Wilder*, 10 Howard 477. But it has been considered, that if the assignment do not contain such a clause, it operates as a mere contract to convey and passes only an equitable title to the assignee, a transfer after the grant of the patent to the inventor being requisite to vest in the assignee a legal title, entitling him to sue for infringement in his own name: Curtis on Patents 172.

There is no doubt as to the efficacy of an assignment made

before the grant of, or before application for a patent to pass the legal title to the patent when granted, if the invention was actually made and existing at the time of the assignment, but as to instruments which purport to assign inventions or improvements not yet made, the case is different.

It is not an infrequent occurrence, that an assignment of a patented invention assumes also to assign improvements which the assignor may have made or may thereafter make upon that invention, and requests and authorizes the issue of letters patent for such improvements to the assignee. Such an instrument, while it may be operative as an assignment of the legal title to improvements made, is not so as to future improvements, no matter how absolute the terms of assignment with respect to them may be. A man cannot assign what he has not, and he has not the right to a patent for that which he has not yet invented. As regards future possible improvements, therefore, an ostensible assignment of them can at most operate as a covenant to convey them when made. No legal title to such improvements when made vests under the instrument, though as a contract to convey it may be good and may be enforced by a bill for specific performance. Until, however, the equitable title which it may confer has been made into a legal title by a valid assignment, the assignee cannot receive the patent for the improvements or maintain action in his own name for an infringement of a patent granted therefor.

Every patent, or any interest therein, shall be assignable in

law by an instrument in writing, and the patentee, his assigns or legal representatives, may, in like manner, grant and convey an exclusive right under his patent to the whole or any specified part of the United States: Sec. 4898, R. S.

Two modes of passing patent property are here specified:

1. An assignment of the patent or an interest therein.

2. Grant or conveyance of an exclusive right under the patent to the whole or any specified part of the United States.

The distinction between an assignment of an interest in a patent, and a grant or conveyance of an exclusive right thereunder to some specified part of the United States, is that by the former the patentee parts with a portion of his interest throughout the whole country, while by the latter he parts with his whole interest throughout a portion of the country.

An assignment of an interest makes the assignee a tenant in common with the assignor, of the rights conferred by the patent. These rights may thus be enjoyed by any number of tenants in common, who may each make, use and vend the thing patented, or grant licenses (*Clum* v. *Brewer*, 2 Curt. 507), independently of the others, and without accounting to them for any portion of the profits. In other words, an assignment of a part interest in a patent does not of itself create the relation of co-partners between the assignor and assignee or establish mutual accountability. To create such a relation, an express understanding must appear that the patent is to be worked by the parties jointly, and that there is to be a division of the profits, or if the assignee is to account to his assignor for any portion of the profits, the undertaking must clearly appear.

The relative position of joint owners of a patent, either as joint patentees or by assignment, is not affected by the apparent equality or inequality of interest held by the several parties.

Whether an assignment purport to convey one-half or only the one-hundredth part of the interest of the assignor, the right to the enjoyment of the patent privilege is held in common, and the respective proportions of interest held by several assignees are of practical moment only where the privilege is exercised by them jointly, or when it is proposed to merge the several interests into one title, or to make territorial partition of the patent right among the parties.

An assignee of a part interest in a patent cannot alone sue for infringement of the patent right, but his co-owners must join in the action, for such an action must be brought by the owner or owners of the exclusive right in the patent in the territory where suit is brought; whereas, such an assignee owns a part only of the interest in the whole United States.

For the like reason, it is apparent that such an assignee cannot confer an exclusive right or license under the patent.

The second mode pointed out by s. 4898, of disposing of patent property, is by the grant of an exclusive right thereunder to the whole or any specified part of the United States.

A grant, such as here meant, vests in the grantee the exclusive right to make, use and vend, and to grant to others the right to make, use and vend the thing patented, either within

the whole United States, in which case it may be tantamount to an assignment of the patent, or within some specified part of the United States. By such an instrument, the grantor divests himself to the extent of the territory named in the grant, of all interest in the patent, although he may not have chosen to vest that interest in all its original integrity in the grantee. For example, though the right of the grantee should be limited to the making or using a limited number of machines, yet if the grantor does not reserve to himself the right to make or use within the territory named in the grant, but vests exclusively in the grantee the right of using and making, and of granting to others the right to make or use, it is an exclusive grant such as the statute contemplates: *Washburn* v. *Gould*, 3 Story 122.

A grantee may maintain an action for infringement of the patent, within the territory covered by his grant, or give *exclusive licenses*.

An "assignment, grant or conveyance" must be by an instrument of writing (sec. 4898, R. S.), but no particular character or form of instrument, nor any particular form of execution is requisite.

It is not necessary that the document should be under seal, or that it should be witnessed, or acknowledged, nor that any particular form of words should be employed in the body of the instrument. It is sufficient if, from the language of the document as a whole, its subject and true intent can be gathered.

Sec. 4898, R. S., further provides that assignments and grants or conveyances of exclusive rights shall be void, as against any subsequent purchaser or mortgagee for a valuable consideration without notice, unless it be recorded in the Patent Office within three months from the date thereof.

By the word "subsequent" here, is meant a purchaser or mortgagee subsequent to the expiration of the three months within which record of the first assignment or grant should have been made, and prior to the time at which it may be made. An unrecorded assignment is valid, as against any one but such a purchaser or mortgagee in good faith, without notice.

The recording is not a pre-requisite indispensable to the operation or validity of an assignment: *Pitts* v. *Whitman*, 2 Story 609. Its object is to protect bonâ fide purchasers; to guard against an outstanding title of over three months' duration, the purchaser need only look to the records of the Patent Office; within that period he must protect himself as best he can, as an unrecorded assignment would prevail: *Gibson* v. *Cooke*, 2 Blatch. 148.

Record of an assignment, grant or conveyance at any time, will protect the assignee or grantee against any purchaser subsequent to the record, for that is notice to the world.

The possible penalty, then, of delaying record beyond the three months, is that during the time intervening between the expiration of that period and the actual recording of his title, another purchaser or mortgagee may have acquired a right which will be preferred. But such an intermediate purchaser

or mortagee, to be preferred, must be bonâ fide, without notice, actual or constructive, of the prior assignment or grant.

To enable an assignee or grantee to maintain suit for infringement, his deed must be recorded, but the record need not be before suit brought; it is sufficient if recorded before the trial: *Blanchard's Gun Stock Co.* v. *Warner*, 1 Blatch. 258.

A licensee is defined as "one who has had transferred to him in writing or orally, a less or different interest than either the interest in the whole patent or an undivided part of such whole interest, or an exclusive sectional interest."

As a license does not change the title to the patent, or any part of it, it need not be recorded, and the licensee, not having an interest in the patent, cannot sue in his own name for an infringement.

A license may be either to make or use or sell the thing patented, or to do all three, and may be exclusive, or merely general, revocable or irrevocable, and for the whole or a part of the term of the patent, and for the whole or any part of the United States.

The distinction between an exclusive license and a grant of an exclusive right under the patent, is that a licensee cannot grant portions of the right to others. His right, though exclusive, is personal; and it is characteristic of licenses generally, that they are not assignable, unless made so by the express terms of the instrument (*Troy Iron and Nail Factory* v. *Corning*, 14 Howard 193), and then only as an entirety, a licensee having no power to apportion among several others the right granted to himself: *Brooks* v. *Byam*, 2 Story 525.

And as a license granted to a certain person without express power to assign, can be exercised only by the grantee; so, a license confined to a specific factory, or place of business, which is technically termed a shop-right, can be exercised only in that place. A license to use *one* patented machine, implies the right to build it for use, to keep it in repair, and to replace it by another, when worn out, unless the license be distinctly confined to a certain specified machine: *Woodworth* v. *Curtis*, 2 Wood. & M. 524; *Bicknell* v. *Todd*, 5 McLean 236.

But unless the license to use be expressly made assignable, the licensee cannot transfer the right of use to one who should purchase the machine from him: *Wilson* v. *Stolley*, 4 McLean 255.

And it has been held that a license to use an invention by the licensee only at his own establishment, does not authorize use at an establishment owned by himself and others: *Rubber Co.* v. *Goodyear*, 9 Wallace 788.

A license to a railroad company to use a patent car-brake on all cars *belonging to the company*, covers its use upon their cars, though running upon the road of another company, but not upon the cars of another company running upon their road: *Hodge* v. *Hudson River Railroad Co.*, 6 Bl. C. C. 85.

If a licensee fail to perform any of the conditions upon which the license is granted, as, for example, the payment of royalties or license-fees, his licensor may treat him as an infringer, and bring action in equity to enjoin him from further exercising the patented invention in violation of the conditions. In such a case, can the licensee defend on the ground of in-

validity of the patent? The purchase of a license forms no bond of allegiance to the patentee, and does not of itself estop the licensee from averring or proving any defence in an action for the infringement of the patent, which any other person might use: *Burr* v. *Duryee*, 2 Fisher 275. But if the license contain covenants or recitals, amounting to an admission by the licensee of the validity of the patent, it would seem that he cannot afterwards make defence to an action by the patentee, contradictory of such covenants or recitals.

Where the license contains a clause, providing that it shall be void on non-fulfilment of the conditions, as, e. g., periodical payments of royalty, it has been held that the licensor may either sue to enforce performance of the condition, or regarding the licenses as forfeited, may sue to enjoin the licensee as an infringer: *Woodworth* v. *Cook*, 1 Blatch. 165.

In a suit of the former kind, the licensee may set up invalidity of the patent, as failure of consideration, if he has not enjoyed the benefits of the license, and has not, in the license, distinctly admitted the validity of the patent, although it would seem that a licensee, who has actually enjoyed the benefits of the license and has paid royalties therefor, cannot, if the invalidity of the patent be afterwards discovered, recover on that account the royalties paid: Curtis on Patents 216, 217.

Where the licensor elects to sue for infringement, it has been held that the licensee is remitted to his original rights and position, as the contract must be avoided altogether, if at all: *Woodworth* v. *Cook*, 2 Blatch. 151.

But a doubt has been expressed whether under the authority

of this decision, the principle is to be extended to relieving the patentee from the estoppel of distinct admissions, in the license, of the validity of the patent: Curtis 218.

In the connection between the conditions of a license, and its operation to confer right upon the licensee, it differs from an assignment or grant of an exclusive right. A license does not pass a title, but is simply a personal power or dispensation, subject to the conditions upon which granted. But an assignment or grant passes a legal title, and to this end operates independently of conditions or covenants with which it may be coupled, so that the title will remain vested in the assignee or grantee, until conveyed by him to another. An assignment or grant, therefore, cannot be conditional in the same sense as a license may be.

The terms of an assignment or grant upon conditions or covenants to be performed by the purchaser, may be such as to enable the assignor or grantor to compel, by suit, a reconveyance upon failure of performance; but until there is an actual reconveyance in writing, the legal title assigned or granted remains in the purchaser.

The concurrent exercise of a patent-privilege by a number of assignees, grantees or licensees, and in the case especially of patents for machines, devices, or compositions of matter, the independent sales by such assignees, grantees or licensees of the things patented to members of the public at large, give rise to apparently intricate questions of respective rights.

An unconditional sale of a patented machine or other article, by a party having a right under the patent to make such an

unconditional sale, confers on the purchaser the same right of using or of selling to others *that* machine, as he would have in regard to any article of merchandise. Such an unconditional purchase and sale is said to take the thing sold out of the limit of the monopoly; and the purchaser may use it until it has been worn out, or may repair or improve on it, or dispose of it, as he pleases, in the same manner as if dealing with property of another kind: *Bloomer* v. *McQuewan*, 14 Howard 539; *Chaffee* v. *Boston Belting Co.*, 22 Id. 217.

And where a patentee had assigned his right to manufacture, sell and use a patented article *within a limited district*, it was held by the Supreme Court, that a purchaser of such article, when rightfully bought within the prescribed limits, acquired by such purchase, the right to *use* it *anywhere*, without reference to other assignments of territorial rights by the patentee: *Adams* v. *Burke*, 17 Wallace 453.

The law of 1836, authorizing the Commissioner of Patents to extend Letters Patent for a term of seven years, from the expiration of the original term, contained a proviso that "the benefit of the extension of a patent shall extend to the assignees and grantees of the right to *use* the thing patented, to the extent of their interest therein."

This proviso was construed to mean (*Wilson* v. *Rousseau*, 4 Howard 646), not that the extension inured to the benefit of such assignees or grantees under the original patent, so as to vest in them any exclusive right under the extension, but simply that those *in use* of the patented article at the time of the ex-

tension should have free right to continue the use, during the extended term, of the specific article or articles so in their possession ; the phrase "to the extent of their interest therein," being construed to mean their interest in the patented articles, be that in one or more of them, at the time of the extension.

And in *Bloomer* v. *McQuewan*, it was held that one in the lawful use of a machine, under a purchase during the original term of the patent, is entitled, within the intention and spirit of the patent laws, to continue such use during an extension made by a special Act of Congress, unless there is something in the language of the act requiring a different construction.

This separating of the right of use from that to make, or to vend, which under the statute was thus applied to the protection of assignees or grantees under the original term of a patent, which might be afterwards extended, the courts have applied, to its fullest extent, for the protection of bonâ fide purchasers of a patented article from the patentee, or from any one authorized by him to sell it ; holding, that in such case the right of use is unlimited, not only as regards time, but as regards place (*Adams* v. *Burke*), even though the vendor's own right of use may be expressly limited to some particular territory by the terms of the instrument under which he claims.

## CHAPTER XII.

### Infringements and Suits for Infringement.

LETTERS PATENT grant to the holder the exclusive right of making, using and vending the patented invention within and throughout the United States and territories. Consequently, a patent is infringed either by making, or by using, or by vending the thing patented, without the patentee's consent.

The unauthorized making of a patented article, whether for one's own use, or for sale to others, is an actionable infringement, and this though there may have been no actual use or sale: *Whittemore* v. *Cutter*, 1 Gall. 429; *Bloomer* v. *Gilpin*, 4 Fisher 50. It is also an infringement, either to use or to sell a patented article without the consent, express or implied, of the patentee. He who purchases a thing, the making or selling of which was an infringement of the patent, will himself be an infringer, if he either uses or sells to another the thing so purchased. In brief, it is an infringement to make a patented article, though it is never used by the maker, or to use a patented article, though made by another, or to sell to others the articles manufactured by another: *Haselden* v. *Ogden*, 3 Fisher 378.

Infringement being a tort, parties engaged together in the making, using or selling of infringing articles are jointly

and severally liable. And though a patent for a combination is not infringed by a party who uses only a part of the elements claimed in combination, if several parties concert to manufacture and sell, each one a different part of the patented combination, with a view that the whole may be put together for sale or use, they may be treated as infringers, and each one be liable for all the damages: *Wallace & Sons* v. *Holmes, Booth & Hayden*, 1 O. G. 117; *Coolidge* v. *M'Cone*, 5 O. G. 458.

And though a patented corset spring, for example, must be attached to the corset, in order to constitute the combination which is claimed, yet the manufacture of the springs, ready to be so applied, will be enjoined: *Barnes* v. *Strauss*, 2 O. G. 62.

But if a patent be for the use of an article in a particular application, and *disclaim* the article itself, the mere making and selling of the article so disclaimed is not an infringement: *Keystone Bridge Co.* v. *Phœnix Iron Co.*, 1 O. G. 471.

A party who manufactures a patented article to the order of a third person may be held guilty of infringement: *Bryce* v. *Dorr*, 3 McLean 582. The question of infringement is one irrespective of motive. A party may be an infringer without intending or knowing it. But motive or knowledge may affect the question of damages: *Parker* v. *Hulme*, 1 Fisher 44.

A contract to *buy* all the product of an infringing machine during a certain period will not, *in itself*, render the purchaser liable to an action for infringement as a user of the machine; but otherwise, if it appear that the contract is colorable only and not real, and that actually the machine was

wholly or partly owned by the party contracting to take the product, or was hired by him under color of such contract: *Keplinger* v. *De Young*, 10 Wheat. 358.

If a patent embrace several claims, action may be sustained for the infringement of any one of them: *Moody* v. *Fiske*, 2 Mass. 112; *Singer* v. *Walmesley*, 1 Fisher 558. The unauthorized use of a patented invention is an infringement, no matter what else the user may add to it (*Johnson* v. *Root*, 1 Fisher 351; *Buerk* v. *Valentine*, 2 O. G. 295), even though the object or result to be secured is thereby better accomplished: *Imlay* v. *Norwich & Worcester Railroad Co.*, 1 Fisher 340. And a device which performs all the functions of one that is patented, substantially in the same way and by substantially the same means, is none the less an equivalent to those described in the patent, because it performs some of those functions better, or performs others in addition: *Wheeler* v. *Clifford Mower & Reaper Co.*, 2 O. G. 442.

The patentee of an improvement upon a patented invention cannot take possession of the latter; he must obtain the license of the prior patentee to use his improvement, or await the expiry of the elder patent: *Colt* v. *Mass. Arms Co.*, 1 Fisher 108.

Licensees, under a patent, may become infringers, either by exceeding the authority given them, ex gr.: constructing two machines, when authorized to use only one (*Bloomer* v. *Gilpin*, 4 Fisher 50), or by failing to observe covenants upon

which the license may be conditioned, and the implied license arising where one has made an article, with inventor's consent, before the grant of the patent, extends only to the continued use after the grant of the patent, and the keeping in condition for such use by repairs, if necessary, of the particular article so made, and anything beyond this will be infringement. And it is no justification of the infringement of a *re-issued* patent, that the infringer had used the invention with impunity *before* the re-issue: *Howe* v. *Williams*, 2 Fisher 395.

The identity which will constitute an infringement is not necessarily exact similarity—substantial identity is sufficient. Two machines, for example, may be dissimilar in appearance, and may employ different devices, yet if they have the same mode of operation, if they effect substantially the same result in substantially the same way, one will be an anticipation or an infringement of a patent for the other, according as it is of earlier or later construction. It will not alter the case that one may attain the result more perfectly than the other, if the same substantial means and mode of operation are employed.

To constitute an infringement, the thing used must be so near to that set forth in the patent as substantially to embody the patentee's mode of operation, and thereby attain the same kind of result as was reached by his invention. It is not necessary that the defendant's device should employ the plaintiff's invention to as good advantage as he employed it, or that the result should be precisely the same in degree: *Winans* v.

*Denmead*, 15 Howard 330. So that, as infringement will not be avoided by addition or improvement, if substantially the same result be obtained by substantially the same means, in substantially the same way ; so also, under like conditions, it is not necessary, to constitute an infringement, that the alleged infringing device should be as perfect in operation as that patented.

It has been held in one case (*Whittemore* v. *Cutter*, 1 Gall. 429), that to make a patented machine merely for philosophical experiment, or for the purpose of ascertaining the sufficiency of the machine to produce its described effects, is not an infringement; but that the making, for which action is given by the statute, is the making of a thing fit for use, and with a design to use it for profit.

In *Brown* v. *Duchesne*, 19 Howard 183, the Supreme Court held that the exclusive right granted to a patentee does not extend to authorizing the prevention of the use upon a foreign vessel entering a port of the United States, of an improvement patented here, if the improvement has been applied to the vessel in a foreign country, and the application was authorized by the laws of the country to which the vessel belongs.

The sale or use of the product of a patented machine is no violation of the patent: *Goodyear* v. *Central Railroad*, 1 Fisher 626. The sale by a sheriff, under an execution, of the materials of a patented machine, is not an infringement; but the purchaser does not, with the materials of the machine, take any right to use the machine in the manner pointed out in the patent: *Sawin* v. *Guild*, 1 Gall. 485. To use the machine

without authority from the patentee, or those holding title under him, will be an infringement.

The purchaser of a patented article from one having a right to make and vend it, within a given portion of the United States, may, if his purchase has been unconditional, use or sell it anywhere, and will not be an infringer, even though he use it within the territory owned by another grantee under the patent.

All actions, suits, controversies and cases arising under the Patent Laws of the United States are originally cognisable, as well in equity as at law, by the Circuit Courts of the United States, or any District Court having the power and jurisdiction of a Circuit Court, or by the Supreme Court of the District of Columbia, or of any territory.

Of the courts here indicated, the particular one to be resorted to in any given case, must be that of a district in which the plaintiff is interested in the patent, and in which the alleged infringer may reside or be found.

Besides pointing out the several courts in which remedy for infringement may be obtained, the foregoing paragraph indicates two modes of procedure, between which the injured party may make his election, i. e., action at law or suit in equity.

As to the remedy at law, "damages for the infringement of any patent may be recovered by action on the case, in the name of the party interested, either as patentee, assignee or grantee. And whenever in any such action a verdict is rendered for the

plaintiff, the court may enter judgment thereon for any sum above the amount found by the verdict as the actual damages sustained, according to the circumstances of the case, not exceeding three times the amount of such verdict, together with the costs:" Sec. 4919, R. S.

This power conferred upon the courts to enter judgment for punitive damages in aggravated cases of infringement materially increases the efficacy of the patentee's remedy at law.

But the recovery of damages ever so exemplary for past infringement is usually a very incomplete remedy, unless accompanied by a restraint of infringement in the future; and as a court of law cannot give this preventive remedy, it must be sought in a court of equity. It is provided, therefore, that any one of the courts above named "shall have power,(upon bill in equity, by any party aggrieved),to grant injunctions according to the course and principles of courts of equity, to prevent the violation of any right secured by patent, on such terms as the court may deem reasonable:" Sec. 4921, R. S.

Long prior to the Act of 1870, it had been determined that the courts having jurisdiction in equity of controversies upon patents, do not act as ancillary to a court of law, and do not require a patentee first to establish his legal right in a court of law, and by the verdict of a jury, before they will interfere, but will themselves consider and determine any disputed questions of fact arising. Accordingly, very much the larger proportion of cases were brought in the first place on the equity side of the courts, both on account of the preventive remedy thus attainable, and because the parties interested were gener-

ally disposed to regard it as an advantage, rather than the contrary, to have the disputed questions of fact arising, as well as those of law, considered and determined by the court without the intervention of a jury.

Under the Act of 1836, however, a court of equity could not award damages, actual or punitive; so that where this remedy was desired, action must be brought on the law side of the court.

But in the Act of 1870, it is provided, that upon decree being rendered in any such case in equity for an infringement, the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby, and the court shall assess the same, or cause the same to be assessed under its direction; and the court shall have the same powers to increase the same in its discretion, that are given to increase the damages found by verdicts in actions upon the case: Sec. 4921, R. S.

As this provision adds to the powers of the courts of equity, those belonging to courts of law in such cases, it is to be presumed that actions on the case for infringement will be less frequent than even before the Act of 1870, and will be resorted to only in cases where injunction and account form no part of the remedy sought for, as where the patentee has established a license-fee for the use of his invention, and the damage suffered is the use without payment of this license-fee; so that there is a complete remedy at law.

The question who may sue for infringement is answered by

Sec. 4919, R. S., which states that "action on the case for damages must be in the name of the party interested, either as patentee, assignee or grantee;" in other words, of the person or persons having the legal title to the patent within the judicial district in which suit is brought, at the time the infringement may have been committed: *Moore* v. *Marsh*, 7 Wallace 515. An assignment of, or grant of exclusive right in, a patent, does not carry with it the right to damages for infringements committed before the assignment or grant: Id. A licensee cannot sue in his own name, though he may be the party immediately injured, nor at law can a licensee join in an action as co-plaintiff with the holder of the legal title; but in equity the owner of the legal title, and the licensee or party equitably entitled to the damages, as the person immediately injured by the infringement, are the proper parties to a bill for an injunction: *Goodyear* v. *N. J. Central Railroad Co.*, 1 Fisher 626. Where the grantee of the legal title is dead, the right of action is in his administrators.

Although the state courts have not cognizance of suits for infringement of patents, there are cases in which they can and indeed must inquire into their validity. These are cases in which the immediate cause of action is a dispute relative to a contract based upon patent property.

Such actions *ex contractu* are not cases arising under the Patent laws, of which exclusive jurisdiction is conferred upon the courts of the United States, and those courts cannot take cognizance of them, unless jurisdiction is conferred by the parties being resident in different states.

Where the action arises out of contract and the parties are residents of the same state, the fact that the contract concerns a patent of the United States, does not oust the state courts of their jurisdiction, or confer it upon the courts of the United States; and where in such a case before a state court, the validity of a patent comes collaterally into question, it will be considered and passed upon: *Rich* v. *Hotchkiss*, 16 Conn. 414.

On the other hand, if in an action in a court of the United States for infringement, collateral questions arise as to the effect or validity of a contract, the court, if infringement be found, may consider the question of contract.

The defendant in an action at law for infringement may plead the general issue, and under it may show that he has not infringed, i. e., either that the thing made, used or sold by him and claimed to be similar to that covered by the patent, is not so in fact, or that the making, using or selling was by license or authority from plaintiff, or that plaintiff has not a good title, or that the patent is void for an ambiguous or unintelligible specification, or that the invention, admitting its novelty, is not a patentable subject.

There are certain other defences which can be made under the general issue, but not without notice in writing to plaintiff or his attorney, given thirty days before trial: Sec. 4920, R. S.

The special matters, to the proving of which at the trial this notice is a condition precedent, are as follows:

1. That for the purpose of deceiving the public, the description and specification filed by the patentee in the Patent Office

was made to contain less than the whole truth relative to his invention or discovery, or more than is necessary to produce the desired effect.

2. That he had surreptitiously or unjustly obtained the patent for that which was, in fact, invented by another, who was using reasonable diligence in adapting and perfecting the same. As to the meaning of this defence, see Chap. II.

3. That it had been patented or described in some printed publication, prior to his supposed invention or discovery thereof.

4. That he was not the original and first inventor or discoverer of any material and substantial part of the thing patented.

5. That it had been in public use or on sale in this country for more than two years before his application for a patent, or had been abandoned to the public.

Notices of the second, third or fourth of these special defences must state the names of patentees, and the dates of their patents, and when granted, and the names and residences of persons alleged to have invented or to have had the prior knowledge of the thing patented, and where and by whom it had been used.

As to the requisite particularity of the notice, the party giving notice is not bound to be so specific as to relieve the other from all inquiry or effort to investigate the facts. If he fairly puts the adversary in the way that he may ascertain all that is necessary to his defence or answer, it is all that can be required, and he is not bound by his notice to impose an un-

necessary and embarrassing restriction on his own right of producing proofs of what he asserts: *Wise* v. *Allis*, 9 Wallace 737.

"If any one or more of the special matter of defence of which due notice shall have been given, be found for the defendant, judgment will be rendered for him with costs.

"The like defences may be pleaded in any suit in equity for relief against an alleged infringement, and proofs of the same may be given upon like notice in the answer of the defendant." And in equity no proof will be received in support of *any* defence not specifically set up in the answer.

Where the patentee's title seems clear beyond reasonable doubt, and infringement is admitted or evident, the courts in equity may grant provisional or preliminary injunction, upon motion after the filing of bill of complaint, and reasonable notice given of the application to defendant. This extraordinary remedy may be granted where the patent is of long standing and the patentee has been in undisputed exclusive possession, or the patent has been litigated and sustained after full hearing. But the grant of a preliminary injunction cannot be claimed as matter of right upon any given state of facts (*Potter* v. *Whitney*, 3 Fisher 77), but rests in the discretion of the court, which may grant or refuse it, unconditionally, or upon conditions imposed either on complainant or defendant. In granting or refusing a preliminary injunction, the court will carefully consider the situation of the parties. Its important office is to preserve the rights of the patentee pending the litigation of his title. If the title has already been fully estab-

lished, or is otherwise so clear that no reasonable doubt of its validity remains, a court of equity would, in many cases, grant such an injunction as it would a final injunction, notwithstanding the injury which might result to the defendant. But where there is no danger of loss to plaintiff, and great loss will result to defendant, the case must be substantially free from doubt to require such action. And it is a material circumstance to be considered whether defendants are fully responsible for any profits or damages which may be decreed against them: *Morris* v. *Lowell Manufacturing Co.*, 3 Fisher 67.

Where a preliminary injunction has been granted, it may be dissolved, upon motion of defendant, upon sufficient cause shown, as, e. g., conclusive evidence impeaching the novelty of the patented invention.

If, after hearing upon the pleadings and full proofs, complainant's title is upheld and infringement found, part of the decree is for final injunction, unless the patent has expired, when the decree will be for an account and assessment of damages.

The cause is then referred to a master to take proofs and report to the court upon these points. To the master's report either party may file exceptions, and after these are argued, and disputed points determined, there is a final decree for profits and damages.

Patent causes may be carried from any of the courts of original jurisdiction to the Supreme Court of the United States, by writ of error in the case of an action at law, or by appeal

in equity. A decree for injunction and account is not a *final* decree from which appeal can be taken: *Humiston* v. *Stainthorp*, 2 Wallace 106. Appeal cannot be taken until after decree, leaving no points to be settled.

Writ of error or appeal should be brought or taken within two years, and may be taken without regard to the sum or value in controversy: Sec. 699, R. S.

By Sec. 4900, R. S., it is made the duty of "all patentees, and their assigns and legal representatives, and of all persons making or vending any patented article for or under them, to give sufficient notice to the public that the same is patented, either by fixing thereon the word '*patented*,' together with the *day* and *year* the patent was granted, or when, from the character of the article, this cannot be done, by fixing to it or to the package wherein one or more of them is enclosed, a label containing the like notice."

In a suit for infringement, brought by a party who has failed to comply with this provision, he cannot recover damages, except on proof that the defendant was duly notified of the infringement, and continued, after such notice, to make or vend the article so patented.

In connection with this rule, requiring patented articles to be marked with the date of the patent, reference may be made to Sec. 4901, R. S. If any person in any manner mark upon or affix to an unpatented article the word 'patent,' or any word importing that it is patented, *for the purpose of deceiving*

*the public*, or if he in any manner mark upon anything made, used or sold by him for which he has not obtained a patent, the name or imitation of the name of any person who has obtained a patent therefor, without the consent of such patentee, his assigns or legal representatives, or in any manner mark upon or affix to any such patented article the word 'patent' or 'patented,' or the words 'Letters Patent,' or any word of like import, with intent to imitate or counterfeit the mark or device of the patentee, without having the license or consent of such patentee, or his assigns or legal representatives, he is liable for every such offence, to a penalty of not less than one hundred dollars, with costs; one-half of said penalty to the person who shall sue for the same, and the other to the use of the United States, to be recovered by suit in any District Court of the United States, within whose jurisdiction such offence may be committed."

## CHAPTER XI.

### Caveats.

Any citizen of the United States who makes any new invention or discovery, and desires further time to mature the same, may, on payment of ten dollars, file in the Patent Office a caveat, setting forth the design thereof and its distinguishing characteristics, and praying protection of his right until he shall have matured his invention. Such caveat shall be filed in the confidential archives of the office, and preserved in secrecy, and shall be operative for the term of one year from the filing thereof; and if application is made within the year by any other person for a patent, with which such caveat would in any manner interfere, the Commissioner shall deposit the description, specification, drawings and model of such application, in like manner, in the confidential archives of the office, and give notice thereof, by mail, to the person by whom the caveat was filed.

If such person desires to avail himself of his caveat, he shall file his description, specifications, drawings and model, within three months from the time of placing the notice in the post-office in Washington, with the usual time required for transmitting it to the caveator added thereto; which time shall be endorsed on the notice. An alien shall have the privilege here-

in granted, if he has resided in the United States one year next preceding the filing of his caveat, and has made oath of his intention to become a citizen. Sec. 4902, R. S.

A caveator is not entitled to notice of any application pending at the time of filing his caveat, nor of any application filed at the expiration of one year from the date of filing; he may, however, renew his caveat for one year on the expiration of the first, on payment of ten dollars, and so on, year after year. Caveats, whether in force or expired, are retained in the secret archives of the office, and are not accessible, save to the caveator, or by those authorized by him to see it.

A caveat, before it can be filed, must be accompanied with an oath of the caveator, setting forth that he is the original and first inventor of the improvement claimed, and that he is a citizen of the United States, or an alien, who has resided within the United States for one year, and has made oath that he intends to become a citizen. The description need not be as particular as that in a specification of a patent, but should be sufficiently precise to enable the Patent office to judge whether there is a probable interference with an application subsequently filed. A caveat must be confined to one invention. Caveat papers, after filing, cannot be withdrawn for alteration; but additional papers will be received and filed, on payment of an additional fee of ten dollars.

Copies of caveats may be procured by the caveator or other person authorized by him. When practicable, a caveat should be accompanied by drawings made on paper or muslin, capable of being folded, and of the same size as patent-drawings.

A caveator is not prejudiced by a patent issued to another without notice to him, though he be not first to adapt his invention to practical use, provided he use reasonable diligence in perfecting his discovery, and in an action for infringement of a patent so issued, the omission to give notice to the caveator may be set up as one of the defences under sec. 4920, R. S., as proof that the patentee had surreptitiously or unjustly obtained the patent for that which was, in fact, discovered by another, who was using reasonable diligence to adapt and perfect the same: *Phelps* v. *Brown & Bros.*, 1 Fisher 479.

The filing of a caveat will not save the inventor's rights against that provision of the statute which bars the right to a patent, if the invention has been in public use, or on sale with his consent and allowance, for more than two years before application for patent: *Bell* v. *Daniels*, 1 Fisher 377.

Although a caveat implies that the caveator, at the time of filing it, does not regard his invention as brought to that state of perfection which he desires, and in the petition and oath the caveat is stated to refer to an invention which the party filing it is experimenting to perfect, it is not conclusive evidence that the invention is only part perfected, in the sense which the law gives to that word: *Johnson* v. *Root*, 1 Fisher 351. A person, said the court, in that case, may choose to file a caveat while he is going on and making improvements upon an invention which he has already completed so as to be of practical utility.

A caveator may, therefore, show that, at the time of filing his caveat, the invention described therein had been demon-

strated to be practically operative, by actual use, and may thus rebut the contrary presumption arising from the nature and statements of a caveat.

But a caveat, not being a publication, can never be, *in itself*, evidence of complete invention, however full and accurate its description may be.

It is common to speak of caveats as affording a temporary protection, thus giving many inventors a mistaken notion that they are a kind of temporary patent, conferring an exclusive right to make, use and sell the invention.

But a patent is a grant from the Government, which can only be based upon the disclosure of a completed invention. A caveat, on the contrary, is merely the act of the inventor in reference to an invention which he regards as incomplete, and therefore not yet in condition to be patented.

He may fear that during the time he requires to mature the invention, some one else may apply for and obtain a patent for it, and he, therefore, files his caveat, "praying protection of his right, until he shall have matured his invention." He must diligently proceed to mature it in order to preserve his right; the "protection" which his caveat affords him being simply that it requires the Commissioner of Patents to notify him if, within the year for which the caveat is in force, another party seeks to patent the same invention; after which notice the caveator has three months within which to file his own application, if he desires to contest the question of priority and the right to a patent.

This is the entire office of a caveat, its purpose being, as expressed in *Phelps* v. *Brown*, 1 Fisher 479, to save an inventor from the effect of the rule of law which gives to the inventor who first adapts his invention to a practical use the right to a patent. Our readers will recall the mention made in an earlier chapter of the exception to this rule in favor of the first to invent, who shall use reasonable diligence to perfect his invention and adapt it to use. Such a reasonably diligent inventor will not, by electing not to file a caveat, lose the benefit of this provision in his favor; nor, by the filing of a caveat, will he relieve himself from the duty of reasonable diligence to perfect and adapt his invention to use. But a caveat is calculated to prevent him from being placed at a disadvantage by the issue, while he is diligently completing his invention, of a patent to another, who, later in inventing, may have been able first to complete the invention, or who may have pirated the idea from him. The filing of a caveat may also tend to indicate diligence on the part of the inventor; but it neither confers any rights nor creates any presumptions in his favor beyond the term during which it is in force; nor will it operate to relieve him from the consequences of deliberate, unmistakable abandonment, or of causing or allowing his invention to be in public use, or on sale, for more than two years before applying for a patent.

## CHAPTER XIV.

### Design Patents.

ANY person who, by his own industry, genius, efforts and expense, has invented and produced any new and original design for a manufacture—bust, statue, alto-relievo, or bas-relief; any new and original design for the printing of woollen, silk, cotton, or other fabrics; any new and original impression, ornament, pattern, print or picture to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture, or any new, useful and original shape or configuration of any article of manufacture, the same not having been known or used by others before his invention or production thereof, or patented or described in any printed publication, may, upon payment of the fee prescribed, and other due proceedings had the same as in cases of inventions or discoveries, obtain a patent therefor: Sec. 4929, R. S.

Patents for designs may be granted for the term of three years and six months, or for seven years, or for fourteen years, as the applicant may in his application elect: Sec. 4931, R. S.

An extension cannot afterwards be obtained of the term selected, under the Act of July 1870.

Under the Act of 1861, design patents might be extended,

and after the passage of the Act of 1870 the question arose in the Patent Office whether a patent granted under the Act of 1861 could then be extended.

The question was decided in the negative (C. D. 1870, p. 39), but the decision perhaps involved a somewhat narrow construction of the effect of that proviso in the clause of the Act of 1870 repealing prior acts, which provides that the repeal "shall not affect, impair or take away any right existing under any of said laws."

All the regulations and provisions which apply to the obtaining or protection of patents for inventions or discoveries, not inconsistent with the provisions of the Designs Act, apply to patents for designs: Sec. 4933, R. S.

The thing invented or produced for which a design patent is given is that which gives a peculiar distinctive appearance to the manufacture or article to which it is applied, and identity of appearance, or sameness of effect upon the eye, is the main test of substantial identity of design. It is not essential to identity of design that the appearance should be the same to the eye of an *expert*. If, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, and sufficient to induce him to purchase one supposing it to be the other, the one first patented is infringed by the other: *Gorham Manufacturing Co.* v. *White*, 14 Wallace 511.

Reported decisions of the Federal courts in cases upon

design patents are very few, and there are some points in the law which have not been distinctly settled in the courts. One of these is the meaning of the phrase "new, useful and original shape or configuration of any article of manufacture," as employed in the statute, whether by "useful" is meant utility in an æsthetic sense, or whether it is to be so construed that a new shape or configuration of an article of manufacture, where it is matter not of ornament, but useful in relation to the uses or mechanical functions of the article itself, may be patented as a design.

At one time the latter view was taken in the Patent Office, even under the Designs Act of 1861, in which the word useful was not employed: C. D. 1869, p. 7; Id. p. 105.

And in one decision at least subsequent to the Act of 1870, this view was regarded as being warranted by the insertion of the word "useful" in that Act (C. D. 1871, p. 53), and it was held that "if a new and at the same time useful shape be devised for a particular article of manufacture, even though no ornamental effect be produced thereby, the inventor is entitled to protection for it under the Designs Act."

But latterly the opposite doctrine has prevailed in the Patent Office: C. D. 1871, p. 251; 4 O. G. 691.

And it may at present be considered the established doctrine in the Patent Office that utility in a functional sense is not an element of patentability as a design, and that the "new, useful, and original shapes and configurations of any article of manufacture" contemplated by the Designs Act, are shapes and configurations for ornamental effect, matters of appearance.

This view seems to be the one most consonant to the language and reasoning of the Supreme Court in *Gorham Manufacturing Co.* v. *White*, though it is to be observed that that case arose, not under the present Designs Act, but under the Act of 1861, and that the matter at issue before the court did not directly involve this particular question.

But in deciding the point actually at issue, the court took occasion to say, "the Acts of Congress which authorize the grant of patents for designs were plainly intended to give encouragement to the decorative arts. They contemplate not so much utility as appearance." And the test of infringement proposed is simply "similarity or dissimilarity of appearance."

The decision in C. D. 1869, p. 7, that design patents could be granted for new and functionally useful shapes and configurations of articles of manufacture, appears to have been largely based upon the assumption that "there is a large class of improvements in manufactured articles which add to their market value and saleability, and often result from the exercise of much labor, genius and expense, but which are not regarded as new inventions, or as coming within the general scope of the Patent laws, although they promote the best interests of the country, as well *as the creations of inventive genius.*"

But the ground of this implied exclusion of improvements of the class referred to from the category of "creations of inventive genius" is not quite clear, especially if, as it is stated, they often do result from the "exercise of much labor, genius and expense."

It is well understood that the law is not exacting as to the degree of inventive genius "requisite to support a patent," but demands simply that something more shall appear than the exercise of that ordinary skill and judgment which may be considered to belong to persons conversant with the particular art to which the invention belongs.

A new shape or configuration, answering a functionally useful end, must be the product either of ordinary skill and judgment, or of that "something more" which will suffice to support a patent.

If then it is not "within the scope of the general patent laws" it must be either because it involves no more than the exercise of ordinary skill and judgment, or because the general patent laws do not contemplate the protection of *any* novelties of that class.

That the latter is not the case numerous authorities go to prove. Changes of form and proportion, unattended with any new or improved result, are not patentable. Otherwise, if there be such a result, serving to indicate the exercise by the originator of that degree of inventive genius, which the law calls for.

The only remaining question, therefore, is whether the Designs Law is intended to protect, among other things, new and functionally useful shapes and configurations of articles of manufacture which are not "within the scope of the general patent law," because they are the results of the exercise of ordinary skill and judgment, and not "creations of inventive genius."

Such a construction of the law manifestly would make its operation mischievous, rather than beneficial, and would establish a distinction in favor of one particular class of improvements without apparent reason.

# TARIFF OF FEES.

| | |
|---|---|
| On filing every application for a design patent for three years and six months, | $10 00 |
| On filing every application for a design patent for seven years, | 15 00 |
| On filing every application for a design patent for fourteen years, | 30 00 |
| On filing every caveat, | 10 00 |
| On filing every application for a patent for an invention or discovery, | 15 00 |
| On issuing each original patent for an invention or discovery, | 20 00 |
| On filing a disclaimer, | 10 00 |
| On filing every application for a re-issue, | 30 00 |
| On filing every application for a division of a re-issue, | 30 00 |
| On filing the first appeal from a primary examiner to examiners-in-chief, | 10 00 |
| On filing an appeal to the Commissioner from examiners-in-chief, | 20 00 |
| For every certified copy of a patent or other instrument, for every 100 words, | 10 |
| For certified copies of drawings, the reasonable cost of making them. | |
| For recording every assignment of 300 words or under, | 1 00 |
| For recording every assignment, if over 300 and not over 1000 words, | 2 00 |
| For recording every assignment, if over 1000 words, | 3 00 |
| For uncertified copies of the specifications and accompanying drawings of patents issued since July 1st 1871— | |
| Single copies, | 25 |
| Twenty copies or more, whether of one or several patents, per copy, | 10 |
| For uncertified copies of the specifications and drawings of patents issued prior to July 1st 1871, the reasonable cost of making the same. | |

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